AFGHANISTAN FORUM

A MAN OF ENTERPRISE

The Short Writings of Josiah Harlan

Introduction, Maps, Chronology
by Christopher J. Brunner

Occasional Paper #27

A MAN OF ENTERPRISE

The Short Writings of Josiah Harlan

Introduction, Maps, Chronology
by Christopher J. Brunner

Occasional Paper #27

ISSN: 0889-7883



August, 1987

The Afghanistan Forum
201 East 71st Street, 2K
New York, New York 10021 USA

INTRODUCTION

> To conquer a dominion by controlling the political parties of a state is a feasible policy, or to reform by gradual means without annihilating the institutions of a subjugated country may be the effect of time and perseverance, but to subdue and crush the masses of a nation by military force, when all are unanimous in the determination to be free, is to attempt the imprisonment of a whole people: all such projects must be temporary and transient, and terminate in a catastrophe that force has ever to dread from the vigorous, ardent, concentrated vengeance of a nation outraged, oppressed, and insulted, and desperate with the blind fury of a determined and unanimous will.
>
> Cabul, the city of a thousand gardens, in those days was a paradise ... And I have seen this country, sacred to the harmony of hallowed solitude, desecrated by the rude intrusion of senseless stranger boors, vile in habits, infamous in vulgar tastes--the prompt and apathetic instruments of master minds, callous leaders in the sanguinary march of heedless conquests.
>
> Josiah Harlan[1]

On the eve of the First Anglo-Afghan War, various foreigners lived and worked in Afghanistan. These included three notables who made their homes in Kabul and intended to remain there. William Campbell was the most successful of the three to the extent that he alone lived out his life in Afghanistan. He served in turn, with professional military efficiency, the East India Company, Shah Shuja'-al-Mulk, Dost Muhammad Khan, Shah Shuja' again in his brief triumph, and finally the restored Dost Muhammad.[2] The most important of the three, historically, was Charles Masson, traveller and writer, pioneer archeological explorer, gatherer of ancient coins, and supplier of sound and sensible intelligence to the British authorities in India.

The most ambiguous figure of the three is Josiah Harlan, soldier--of-fortune. He swaggered through the events of his day, eccentric and authoritarian in manner, loudly dressed and brandishing his titles, a shameless exaggerator and promoter of himself, consistently ungenerous in his discussion of others. He was all of the following: "an eccentric and undoubtedly an enterprising man," "clever and enterprising," "a man of strong passions and seems to have taken little pains to restrain them ... a man of considerable ability, great courage, and enterprise," "a wonderful degree of local knowledge and great shrewdness ... no fool, though he dressed like a mountebank."[3] W.J. Kaye, who seems to be the only historian who made serious use of Harlan's problematic testimony, sketched him fairly:

> an American adventurer, now a doctor and now a general, who was ready to take any kind of service with any one disposed to pay him, and to do any kind of work at the instance of his master. Clever and unscrupulous ... [4]

He has a certain curiosity value as "the first American known to have visited and resided in Afghanistan."[5]

Without Harlan on the historical stage, one imagines, the Afghans would have been no more effective against the Sikhs in 1835 nor less so (in their own view) in 1837. Thus, while claiming a part in all the political situations in which he found himself, he contributed color but not substance, and by failing to write down the store of his experience he sacrificed historical impact. He did not hesitate to present himself as the protagonist of the play, the nemesis of Ranjit Singh, Dost Muhammad, Shah Shuja', and the British; and so he has continued to provoke both ridicule and rage. Charles Grey, the lone chronicler of his career in the East, could not forgive his animus against the British empire in India (and the arrogant tone in which he expressed it) and alternated between the two attitudes. Oddly, he attributes to the opportunist, ever grasping at the fringes of power, a consistency in the service of Shah Shuja'. This is less likely on the part of Harlan than a longing to return to the British imperial establishment he served as a surgeon. His later tirade against the empire expresses the attitude of sour grapes so characteristic of his writings. Grey paved the way for the bitter hostility of Khushwant Singh. Yet, even if Harlan's service to the Sikhs ended on an inglorious note, it should be noted that the Westerners working for Ranjit Singh faced precarious conditions and uncertain pay. The prevarications of Harlan (who may be his own worst enemy) encourage one to think the worst of his actions, but extenuation is often possible from their context.[6]

Was Harlan a split personality? Much of his behavior can be understood (as Grey perceived in his way) by viewing him as an American of the generation which assimilated a continent. He assumes change as the normal condition, looks out for a profitable venture, is always restless, ready for the unknown, self-assured (at least outwardly), opinionated, of immense self-esteem, and sensitive to slight. He is ready to take on any role--physician, spy, diplomat, governor, general, landed aristocrat, scientist--that demonstrates his superiority. While somewhat interested in the past history of the landscapes he traverses, he chiefly has an eye for the here and now--terrain, flora, fauna, people and customs--with a view to utility. He is apparently an effective salesman and seems to have little use for writing except as a means to an end. More idiosyncratic are the domineering manner, flaunting of titles, and delusions of grandeur. His bizarre and vivid persona, which apparently could be attractive when it chose, irresistably recalls the vagaries of Hermann Goering.[7] According to oral tradition, Harlan was not liked by his neighbors in Pennsylvania,[8] and such may also have been his fate during his Asian adventures. There is no indication of lasting bonds such

as those Masson established wherever he went, only relationships based on power or self-interest. This deficiency, whether or not it derived from psychological disturbance, would have set an inexorable limit to Harlan's ambitions in the sphere of Oriental politics. With his lack of gregariousness (so complementary to American individualism) and aristocratic hauteur, Harlan diverged sharply from the culture and mores of his native land and class as well.

The three articles collected here show Harlan at his two extremes. The first is a promotional newspaper piece advertising his planned book, the Personal Narrative. It was reprinted as an appendix to his actual book, the Memoir--a pastiche of annotations, newspaper clippings, lengthy quotations, and pontifications which encapsulate the interesting portrait of Dost Muhammad Khan and sketch of life at his court. The article displays Harlan the incorrigible showman, embellishing and dramatizing his experience to catch the public eye.

He had better things to offer, as shown in the surviving prepared pieces of the Personal Narrative whenever they get away from the subject of himself. These derive from his extensive journal. He must have mined this source also for the other two articles included here, which he wrote in the hope of interesting the U.S. government to send him back to Afghanistan to collect camels or grapevines. In these works Harlan is as attractive as he ever gets, and essentially factual as he martials his observations. He manages to rise to relatively good humor; time has moderated the anger and hurt pride which dominate the Memoir.

After everything, one wonders how well Harlan adapted to, and enjoyed, everyday life in Afghanistan, as opposed to role playing and court intrigue, and how much he really cared about the impact of the war beyond its effect on himself. Because the bulk of his manuscript material was destroyed by fire, the reader has no record of private thoughts or unstudied attitudes by which to judge. In his favor, at least, are his linguistic skills (occasionally glimpsed, once directly attested), his detailed observations of the life around him, described with at least some appreciation and zest, and his apparent dream of returning to Afghanistan. One would like to imagine the two incompatible personalities, Masson and Harlan, both displaced from Kabul back to their homelands, both bitter against British officialdom, as reconciled, all unknown, by a common memory and affection for the Afghanistan that had been their home. These two, their common foe Alexander Burnes, and other players who passed by or who clashed in character, cause, or interest in that period, still managed to sound a common theme which outlived their disputes and has only gathered force with time--their respect for, and joy in, the life and the vital energy of Afghanistan.

Christopher J. Brunner
Cold Spring, New York

Notes

1 Mem. 5, 151-52. For short titles, see below under References.

2 A biographical sketch is given in Grey 224-31.

3 Claude Wade quoted in Grey 260; Wolff 260; Lawrence 46; Kennedy 119.

4 Kaye I, 135

5 Vartan Gregorian, The Emergence of Modern Afghanistan (Stanford, 1969), 75.

6 Khushwant Singh, Ranjit Singh. Maharajah of the Punjab (London, 1962); A History of the Sikhs, vol. I (Princeton, 1963). On the situation of the European employees, see W. G. Osborne, The Court and Camp of Runjeet Sing (London, 1840; reprint Karachi, 1973), 151.

7 The Reichsmarschall's obsessed, theatrical style was firmly established well before the seizure of power. Compare the mannerisms he exhibited to the startled Otto Wagener, organizer and party economist, in a 1931 visit (Henry Ashby Turner, Jr., ed., Hitler. Memoirs of a Confidant [New Haven, 1985], 117-24).

8 Ross 20.





Above: Josiah Harlan.
Right: Dost Muhammad Khan, drawn by Harlan (Mem., frontpiece).

CHRONOLOGY

12 June 1799	Harlan "was born of a respectable Quaker family in Philadelphia." His birthplace was Newlin Township, Chester County, Pennsylvania.	Wolff 259 Ross 9
1814	"When fifteen years of age, [he] amused himself with reading medical books, and the history of Plutarch, as also the inspired Prophets; in the which study I found him wonderfully well versed." His brother Richard was then studying toward his medical degree at the University of Pennsylvania; he received it in 1818 and went on to a career of some note as a physician, teacher of comparative anatomy, and natural history writer. Josiah's education is not known. He evidently did not follow in Richard's footsteps; he is not recorded in <u>Matriculates</u> or <u>Alumni</u>.	Wolff 259 <u>Alumni</u> 579 <u>DAB VII</u>, 273-74
1817	Richard "made a voyage to Calcutta as surgeon of an East India ship."	Scharff II, 1619.
1820	By Josiah's account, "his father sent him as a supercargo to Canton, in China. He returned thence in thirteen months to Philadelphia, where he fell in love with a young lady, who promised to marry him. He sailed again to Calcutta; but hearing that his betrothed lady had married somebody else, he determined never again to return to America. He went to China in a commercial capacity."	Wolff 259
Feb. 1824	In Calcutta the governor-general, Lord Amherst, declared war on Burma.	
July 1824	He "returned a third time to Calcutta. He presented himself for examination at the Medical Board, and was appointed surgeon at the Calcutta general hospital."	Wolff 259 Grey 252 "Narr." 2
Jan. 1825	"He was transfered to the Artillery of Dum--Dum, and proceeded with that detachment to Rangoon." "He served ... under General Sir Archibald Campbell, in medical charge of a detachment of Bengal Artillery, commanded by Colonel ... George Pollock."	Wolff 259 Grey 252 "Narr." 2
Aug. 1825	In Harlan's artistic account, "having visited the Burmese Empire as far as Prome, he returned to Calcutta, and from thence travelled up to Simlah to Lord Amherst, from whom he	Wolff 259

	demanded and obtained permission to resign." Grey, who seems to have seen Harlan's service record, says "he served with Native Infantry at various stations, his last being Karnal, and was on leave at Ludhiana when the order was issued for the dismissal of all the temporary surgeons."	"Narr." 2 Grey 252
24 Feb. 1826	Hostilities in Burma ended with the signing of the treaty of Yandaboo.	
	Harlan "was discharged, with many others of that class" [i.e., temporary surgeons].	AJ 1841, 194
	If Harlan was still officially in the East India service when he reached Ludhiana, he must already have been looking for alternatives. Claude Wade, the political agent there, later reported he arrived "with permission to cross the Sutlej ... Dr. Harlan's principal object in wishing to visit the Punjab was in the first place to enter Ranjit Singh's service." The maharajah declined to grant Harlan a passport, and he was unable to cross the river into the Sikh domain.	cited in Grey 253
	He took up with the ex-king of Kabul, Shah Shuja'-al-Mulk, who was living at Ludhiana on his British pension and had not yet arrived at an understanding with Ranjit Singh. He received "the powers of a secret agent, in which he was commissioned and stimulated to revolutionize Avghanistan in favor of the 'true King'." He apparently proceeded to raise a small troop; probably in this connection, W. L. McGregor heard he "hoisted the American flag at Loodianah, and collected a rabble."	"Narr." 2-3 McGregor I, 274
	From this time on, Harlan would ever cultivate the British. Wade reported: "Prior to his departure, Dr. Harlan proposed to communicate his progress to me as opportunities might offer, and should his communications contain anything of interest to the Government, I shall consider it my duty to report."	Grey 253
15 Oct. 1827	Wade wrote the previously cited dispatch, noting that Harlan "has now left Ludhiana, with a view of proceeding to Peshawar, *via* Bahawalpur." He went "accompanied by 100 attendants, and travelled on across the Indus, up to Peshawr, where he intended to take possession of the fortress of Tack; but he failed, and went disguised as a	Grey 253 Whitteridge 3 Wolff 259

	Dervish to Cabool ... He was accompanied for some time by a Mr. Mason." After the failed enterprise, he presumably travelled alone. His linguistic skills probably equalled those of Charles Masson, but travel in the guise of an ordinary Afghan would have been a surprising departure from Harlan's typical style, while it was congenial to Masson. It is unlikely that Harlan made an actual attempt on Tak, which Masson found fortified and with a sturdy Pashtūn population.	"Narr." 3 Masson I, 49
1828	In Kabul he "became a guest in the house of the reigning Prince's brother"--Nawab Jabar Khan. He probably played on the latter's susceptibilities by presenting himself as an authorized British agent. Wade observed that he was "merely endeavouring to impose on the Afghans as a British Agent." At the same time he continued writing to Wade and was "leading the English authorities to believe that he desired to constitute himself an agent between their Government and Shāh Shujā."	"Narr." 3 Whitteridge 21 cited in Grey 254 cited in Cunningham 207
3 Feb. 1829	Wade, having received a letter from Harlan (perhaps his last report before leaving Kabul), passed it on but recommended "that no further communication be held with him."	Grey 254
March 1829	Harlan arrived in Lahore, apparently well--off. He proceeded to develop a successful medical practice among Ranjit Singh's court, and he negotiated on and off with the maharajah about employment.	Grey 255
Dec. 1829	He was appointed governor of the eastern hill districts of Nurpur (seized from its rajah in 1816) and Jesrota.	"Narr." 3 Grey 255-56
ca 28 May 1831	Harlan was elevated to the governship of the more strategic district of Gujrat. On this occasion he was required to swear an oath of perpetual service to Ranjit Singh.	Suri 42-43 Grey 256
March 1832	The large landholders of Gujrat "filed a suit before the Maharaja against Hallan Sahib on account of his highhanded policy. A letter full of wrath was issued to the Kardars [royal agents]." Harlan would later tell Henry Lawrence he suffered as a result of his "unflinching firmness;" but Lawrence's Afghan friend, Chand Khan, said of Harlan and the other foreign governors: "See if they don't chop off men's hands and feet, and hang up, with as little reason as the worst of the Sikhs."	Suri 134 Grey 256 Lawrence I, 46 Lawrence I, 226-27

10-13 June 1832	Joseph Wolff, the peripatetic apostle to the Muslim world, passed through Gujrat, where he "was most kindly received by a very interesting man, the governor of the place and province." On 11 June he "preached in the house of Dr. Harlan to some Armenians and Mussulmans in the Persian tongue." The tone of Wolff's account is favorable here. Some thirty years later he wrote up a more colorful story (Travels and Adventures, London, 1860-61, II, 261), a caricature which Grey enjoyed but which is of doubtful validity. This was well after publication of Harlan's Memoir, whose blasting of British policy he piously hoped would be forgiven.	Wolff 258 Wolff 260 Grey 253-54 Mem. 23
Jan. 1834	Shah Shuja' set out for Shikarpur on his expedition to regain the Afghan kingship from Dost Muhammad Khan. Grey claims, perhaps from India Office material but with no exact reference, that Shah Shuja' expected Harlan to join him with men and money. Harlan presumably remained in regular communication with Ludhiana in this period; he treated Wolff to a sales talk on the advantage to the British of restoring Shah Shuja', so he may have continued to promote the ex-king's cause.	Grey 257 Wolff 260
30 Jan. 1834	Dr. J. G. Gerard met Harlan in Lahore and learned from him that Masson was in fact a deserter from the East India Company army. Harlan perhaps had already so informed Wade a few years previously.	Whitteridge 103
6 May 1834	With Dost Muhammad Khan busy watching Shah Shuja's advance on Kandahar, the Sikhs, led by the maharajah's best general, Hari Singh, occupied Peshawar.	
2 July 1834	Shah Shuja' was defeated at Kandahar. His general, William Campbell, fell wounded, was captured, and was taken to Kabul.	Mohan Lal I, 162
Jan. 1835	Dost Muhammad assumed the title of amir. He began planning a spring campaign to retake Peshawar. He presented the venture as a holy war against the Sikhs, but he apparently hoped to achieve his objective through a mere demonstration of force.	Mem. 123-24; Mohan Lal I, 168-70; Malleson 357
Mar.-Apr. 1835	Ranjit Singh heard of the upcoming campaign. He hoped to disrupt it by aggravating the perennial distrust and conflict among the Barakzai chiefs. He sent Harlan as envoy to Sultan Muhammad Khan, the amir's brother and	Mohan Lal I, 173

Date	Event	Source
	former ruler of Peshawar, who was ensconced in Bajaur and commanded the tribal warriors there (10,000 according to Harlan). Harlan's mission was to win the prince to the Sikh side.	*Mem.* 125
4 Apr. 1835	The amir left Jalalabad and advanced slowly to Basawal, hoping for overtures from the Sikhs. As tribal forces joined with the regular troops, religious feeling intensified. According to Harlan, the Afghan army reached 50,000.	Masson III, 334-35 *Mem.* 124
	At Basawal the Afghans were briefly euphoric on hearing that Sultan Muhammad Khan had killed Harlan. They soon learned that the prince had received him warmly. Nawab Jabar Khan was dispatched to Bajaur to secure the prince's loyalty.	Masson III, 335-36 Mohan Lal I, 173
16 Apr. 1835	Ranjit Singh received a report that the amir had come 11 *kos* (ca 22 miles) from Jalalabad. This corresponds to the distance to Basawal. The maharajah decided his presence was required at Peshawar.	Suri 226
	The amir advanced to Dakka.	
20 Apr. 1835	Harlan's mission was shown successful. Ranjit Singh received (1) Sultan Muhammad Khan's offer of service in exchange for Peshawar and (2) Harlan's assurance that the prince would take what he was offered. The prince "had issued letters to all the *Ghazis* to send their followers in different directions away from the camp of Dost Mohd. Khan."	Suri 227
	Nawab Jabar Khan, Sultan Muhammad Khan, and Harlan came down to Dakka. At least some of the Bajaur warriors attended on the prince. The tension of the situation is shown by the prince's fear of drinking refreshments offered by the amir.	Mohan Lal I, 173; Masson III, 337 *Mem.* 163
	The amir and Harlan had a sharp confrontation. Harlan did not hesitate to flaunt the prince's disaffection, for which the amir reproached him. Although Harlan relied on protection from the other Barakzais, the amir's open hostility and veiled threat made his position in the camp precarious. He offered the amir the gift of a Qoran; after witnessing a review of the Afghan forces, he was allowed to depart for Peshawar.	Mohan Lal I, 173; Masson III, 337; *Mem.* 158-59 Masson III, 337; cf. *Mem.* 124

	The amir raised the stakes by crossing the Khyber Pass and camping his army at Shekhan on the Peshawar plain.	Mohan Lal I, 174; Masson III, 338
29 Apr. 1835	Perhaps on hearing of this move, the maharajah sent ahead General Avitabile and others at top speed. They were instructed to observe restraint in deploying the troops and to "engage themselves in matters of war and peace."	Suri 227 Masson III, 338 Suri 227
	A state of truce suited both sides for the moment. The now unreliable Nawab Jabar Khan at first conducted the truce negotiations. Then, for some reason, Sultan Muhammad Khan was allowed to go to Peshawar to continue truce talks. The prince knew he would not gain back Peshawar if the amir won, and this was an opportunity to pursue his private interests.	Mohan Lal I, 174-75; Masson III, 338-39 _Mem._ 159
5 May 1835	Ranjit Singh was informed of the prince's activity; the minister Faqir Aziz-ud-Din was dispatched to talk to him. On the same day several thousand Afghans advanced to skirmish with the Sikhs, who held to a defensive strategy. The amir may have instigated this action in order to endanger his brother's safety; he denied the accusation.	Suri 228 Mohan Lal I, 175; Masson III, 339
	Afghan counsel was divided between battle and withdrawal, with Nawab Jabar Khan and the amir inclining to the latter.	Mohan Lal I, 176-77; Masson III, 340-41
6 May 1835	Ranjit Singh reached Peshawar; his chiefs preferred battle to giving up the city, as did he. Sultan Muhammad Khan presented gifts and asked for an estate in return for his services. The maharajah sought to use him to persuade the amir to withdraw. He also proceeded to reconnoiter and plan the deployment of his troops.	Suri 228-29
10 May 1835	The more numerous Sikh forces were brought up to partly envelop the Afghan camp. Discipline may now have begun to deteriorate in the amir's army; presumably it was not aided by Sultan Muhammad Khan maintaining a separate camp.	Suri 231; Masson III, 341 Suri 230
	Faqir Aziz-ud-Din, Sultan Muhammad Khan, and Harlan were dispatched to persuade the amir to withdraw. He decided to do so, but was concerned how to avoid deterioration of his retreat into a route. He and his advisors	Mohan Lal I, 177-78; Masson III, 342-43; Suri 231

	decided on the strategem of seizing the emissaries as hostages for payment of cash or territory, also to place responsibility for this extortion on Sultan Muhammad Khan.	
11 May 1835	The minister got off a letter to Ranjit Singh reporting the amir's peaceful inclination. Sultan Muhammad Khan pretended to play along with his brother's plan; the emissaries were summoned, denounced, and put in the prince's custody. That night the amir led his army back across the Khyber, sacrificing his camp as plunder to the tribesmen. The prince immediately conducted the emissaries back to Peshawar. He released the Bajaur tribesmen back to their homes, and the next day he wrote an angry letter to the amir. Kaye and Grey sneer at Harlan's pride in a piece of dangerous work effectively done.	Suri 231-32; Mohan Lal I, 179-80; Masson III, 343-46; <u>Mem.</u> 125; Kaye I, 135-36; Grey 257
	Harlan continued as governor of Gujrat. Grey believes he continued to send reports to Wade at Ludhiana. His success as both physician and agent may account for Ranjit Singh's unusual confidence in him which Lawrence remarked on.	Grey 259-60; Lawrence I, 46
19 Aug. 1835	The maharajah suffered a stroke, causing partial paralysis of the face and slurred speech. It is not known if this event led to a change in Harlan's position. McGregor attributed to him "the somewhat anomalous position of Physician and Captain at the court of Lahore;" however, these roles are not inconsistent with his governorship. Ranjit Singh later told Dr. Martin Honigberger that Harlan, apparently while governor, was busy practicing alchemy, i.e., transmutation of metals.	Suri 243; McGregor I, 274; Honigberger 55-56
Apr. 1836	To help the maharajah, Harlan "constructed a talisman to open the tongue, ... a gold chain round a pig representing the talisman of life." Although promised lavish reward for a cure, Harlan demanded a lakh of rupees in advance. After an unsatisfactory interview Ranjit Singh ordered him expelled from Lahore, and he moved on to Ludhiana. McGregor heard that Harlan had recommended electric shock treatment but demanded payment of 5,000 pounds to build the equipment. Perhaps this account is also true or even part of the	Suri 286; McGregor I, 274-75

	talisman controversy. (McGregor himself administered shocks later that year.)	
May 1836	Ranjit Singh received a report from Ludhiana that Wade had "remarked that Hallen Sahib was a very wise and intelligent person and that the Talisman prepared by him was quite accurate and exact." Perhaps Wade was concerned at losing a useful informant in Lahore. (The shrewd Chand Khan had said of Harlan and the British: "Harland was once their nokar [servant], and may be so again.") The maharajah sent his representative a conciliatory message for Harlan, assuring him of royal favor, but without effect.	Suri 289 Lawrence I, 227 Suri 290
17 Oct. 1836	Wade reported: "After remaining some time he set out for Bahawalpore with the intention of joining Dost Mahomed at Kabul ... His declared intention is to bring down an army to avenge himself on his former master."	cited in Grey 260
	According to Harlan, Dost Muhammad received him like a brother and made him "aid-de-camp and general of his regular troops." The more prosaic fact is that he worked with Campbell to develop "Dost Mohamed's disciplined infantry--if such a term may be used when speaking of it." This force always took second place to the cavalry and probably varied greatly in number from year to year. The core force may have remained around 1,500; on campaign it would be supplemented with thousands of untrained troops and tribal levies.	"Narr." 4 Mem. 148 Vigne 378 Mohan Lal I, 239-40; cf. Grey 331, Suri 467
ca Jan. 1837	The amir planned a campaign, under the direction of his eldest son Muhammad Akbar Khan, aided by other family members, in reply to Hari Singh's advance from Peshawar to Jamrud. Harlan claimed the idea as his own.	Masson III, 381-82 "Narr." 4
30 Apr. 1837	A messy battle occurred outside Jamrud. At the conclusion the Afghans held the field and Hari Singh was dead; they declared a victory and withdrew. Harlan claimed that his brainchild yielded 2,000 Sikh dead to 1,000 Afghans and gave him his revenge.	Masson III, 382-87 Kaye I, 137 Mem. 135 "Narr." 4 Cunningham 211
20 Sep. 1837	Alexander Burnes arrived in Kabul, ostensibly to negotiate a commercial treaty between the British and the amir.	Burnes 107 Masson III, 403
	Harlan, like Masson, viewed Burnes as rather inept. He depicts how Burnes lost face by directly presenting gifts for the amir's family (in violation of custom) and cheap ones	Mem. 138-40 Masson III, 469, 479

	at that. Harlan was not able to repair an accordion broken by a royal offspring.	
Feb. 1838	Masson disparaged Harlan in a letter to his friend Henry Pottinger, calling him "a violent and unprincipled man." Evidently their shared embarassment over the Burnes mission had not brought these two together.	cited in Whitteridge 103
5 Mar. 1838	A last round of discussions failed, after which Burnes finally wrote his request for permission to depart. There was considerable reluctance at the amir's court to allow the negotiations to lapse. At a council, Harlan was shown Lord Auckland's letter to the amir. The suggestion was made, and accepted by the council, that Harlan act as negotiator for the Afghan side. This proposal was conveyed to Burnes, who declined it. Harlan then sent his own note to Burnes, who again declined.	Kaye I, 206-207; <u>Mem</u>. 139 <u>Mem</u>. 171-72
26 Apr. 1838	Burnes left Kabul, followed by Masson.	Burnes 210 Masson III, 478
18 June 1838	Burnes, having joined in the discussions at Lahore for definition of the tripartite alliance, was questioned by Ranjit Singh about the amir's resources, also about Harlan and another ex-employee. Burnes diplomatically answered that they "were not expected to gain anything on account of their faithlessness and were sure to be punished for their bad deeds ... in due course of time."	Suri 467
Sep. 1838	The amir decided to send a force, under his son Akram Khan, against the aggressive ruler of Qunduz, Mir Murad Beg. Harlan was "councillor and aid-de-camp to the young chief," whose army comprised 1,400 cavalry, 1,100 "effective infantry," and 100 artillerymen.	<u>CA</u> 101
Nov.-Dec. 1838	The army reached Bamiyan via the Kharzar pass, which inspired Harlan to again raise the American flag; he greatly exaggerates the elevation (4,635 feet). Harlan was now acquiring experience with pack animals; the expedition used 2,000 horses, 400 camels, and one elephant (sent home from Bamiyan due to the cold). Harlan commanded "a division of the Cabul army, accompanied with a train of artillery, consisting of four six-pounders and two battering guns." The amir did possess six-pounders (some were found at Arghandeh), but Kaye judged, from the report of troops	<u>CA</u> 101 "Narr." 4 <u>Mem</u>. 38 Kaye II, 11

	who followed the same route in 1839 and saw the wheel ruts from the previous year, that the Afghans hauled only three-pounders.	
	The army turned northward and took Saighan. Harlan claimed credit for the victory because of the presence or use of his artillery. Grey derided his claim, referring to Masson; but the latter's survey of the valley does not show absence of defensive capabilities.	"Narr." 6 CA 145 Grey 249 Masson II, 405
	At Kahmard the army was joined by Hazara auxiliaries. Impressed by the artillery they allegedly made a "treaty" with Harlan and swore submission to him. He thereby gained a principality and became "prince" of the Ghori Hazara tribes.	"Narr." 4 CA 141-44
Dec. 1838	The army moved north to Mazar via the Qara Kotal pass, Ru'i, Darrah-i Suf, Darrah-i Gaz, and Boynaqara. It picked up a caravan of 1600 camels and 600 pack-horses.	"Narr." 4 CA 90-95, 102 Mem. 59 "Camels" 61
Feb. 1839	Having turned east to Tashkurghan, the army apparently completed its demonstration of strength to its own satisfaction and waited out the winter there. Harlan was shown a prodigious eight-pound cantalope.	"Fruits" 535
ca 4 Mar. 1839	The army set out on the return trip. It kept to the main road: Aibak, Khurram, Ru'i, Doab, Kahmard, Saighan, Bamiyan.	CA 95
27 Mar. 1839	Continuing on, short of food and fodder, Harlan and the force with the artillery had a difficult crossing of the Shibar pass. They continued down the Ghorband valley to the Koh Daman and Charikar and on to Kabul.	CA 96-97
25 Apr. 1839	The British force conducting Shah Shuja' back to Kabul took possession of Kandahar. Harlan later learned from the British that they used 35,000 camels in the campaign.	Mem. 7, 58 CA 102
	According to Harlan, the amir now put him in charge of the Afghan armies. In fact, he is not known to have taken part in preparations to confront the British.	"Narr." 6
23 July 1839	Ghazni was stormed by the British. Harlan and the amir may have had a falling out. The only indication is that "Harland ... was	

	treated with unmerited severity by the Ameer previously to his flight from Urghundee."	Havelock II, 145
2 Aug. 1839	The amir fled from his encampment at Arghandeh, leaving behind baggage, artillery, and ammunition, toward Bamiyan. His final exhortation to a dispirited army won the admiration of Victorian contemporaries. Harlan's account continued the drama with a picture of Afghan demoralization and the looting of the camp. Harlan does not appear to have been an eyewitness, and historians have been reluctant to accept this scene.	Havelock II, 101-02; Kaye I, 470-71; Malleson 379; "Narr." 7-8 cf. Mohan Lal II, 285 Forbes 29
7 Aug. 1839	Shah Shuja' and the British took possession of Kabul. "We found him [Harlan] in Cabool when we took possession of it."	Havelock II, 145
	Campbell had no problem transferring to the service of Shah Shuja'. Harlan may have been <u>persona non grata</u> with the British envoy (and actual ruler of Kabul) William H. Macnaghten, as well as with Burnes, now installed as political agent. "Indirectly I offered fairly to the English resident at Cabul, but with his deputy as an unscrupulous personal enemy, well acquainted with and jealous of my influence, I made no effort to achieve a position at the court after the English entry." It is more likely that he tried but failed.	<u>CA</u> 144
	Nevertheless Harlan acted as go-between with Macnaghten on behalf of the amir's genial and flexible nephew, Nawab Muhammad Zaman Khan, obtaining a safe-conduct which allowed the Afghan to return to his house in Kabul (very near to Burnes'). Then "the guarantees were violated by making His Excellency a nominal prisoner at large! Trusting to English faith, I found myself compromised." If Harlan retained any credibility with the Afghans at this time, as would appear to be the case, he had offered the British a tempting opportunity to destroy it.	<u>CA</u> 144-45; Mohan Lal II, 406-08; <u>CA</u> 144-45
ca 16 Sep. 1839	Possibly while the above episode was in progress, R. H. Kennedy met Harlan at, of all places, Burnes' house. Harlan spun a tale of how he aided the British by withholding his military skills from the amir and, in fact, going over to them. Kennedy was convinced.	Kennedy II, 119-20
16 Sep. 1839	The withdrawal of the troops not detailed for the ongoing support of Shah Shuja' began.	Havelock II, 164-65; Kennedy II, 110; Kaye II, 14

	Harlan was sent back to India with the departing troops. Travelling via Kandahar and Quetta, he observed for himself the immense wastage of pack animals that had occurred during the previous year's advance.	Grey 263 "Camels" 64; cf. Havelock I, 240; Forbes 20
	Harlan was held at Ludhiana, then sent to Calcutta and "provided with a free passage to America at the expense of the country he never lost an opportunity of vilifying"--scarcely a fair comment on the EIC surgeon who wooed Claude Wade for so long and had probably earned at least the price of passage home.	Grey 263
Aug. 1841	Harlan arrived in Philadelphia. He found that brother Richard had not invested well the money he had sent back over the years. Nevertheless he purchased land and tried to establish himself as a country gentleman.	Ross 19
25 Aug. 1841	He was publicized in an article in the Philadelphia newspaper, the National Gazette.	Ross 19
20 Jan. 1842	Another account of his adventures appeared in another Philadelphia newspaper, the United States Gazette. It promoted the anticipated publication of his journal.	"Narr." 1 Ross 9
May 1842	His only actual book, A Memoir of India and Avghanistaun, was published in Philadelphia. The book may have been thrown together hurriedly to take advantage of the topicality of the Anglo-Afghan war. Grey wished to believe that the British press so demolished the Memoir in its reviews that publication of the Personal Narrative became impossible. It is more likely that Harlan never finished preparing the manuscript due to lack of financial inducement.	Grey 242
1 May 1849	Harlan was married at last. He seems to wear the title 'general' as if it were his first name.	Ross 20
1853	Secretary of War Jefferson Davis was promoting the idea of using camels for military transport. A bill to authorize the acquisition of camels was presented to a still reluctant Congress.	Carroll 392-93
	Harlan's manor was heading toward bankruptcy, and he was probably looking for other enterprises. He worked up the material for	Ross 20

	the paper on "Importation of Camels." It was edited by Daniel Jay Browne, agricultural clerk of the U.S. Patent Office, and was published in that office's reports the following year. The modesty with which this paper advances Harlan's qualifications to direct the collection of camels is presumably due to Browne's editing. For support, Harlan cites the prominent upstate New York landowner Caleb Lyon, who was then in Congress.	DAB III, 164 "Camels" 68 DAB IX, 527-28
1854	Harlan's essay was favorably referred to by a leading exponent of the camel venture, George P. Marsh. If Harlan's discussion helped at all to gain the appropriation for the joint army-navy collecting voyage, it brought him no individual benefit.	Marsh 103 Ross 20 Carroll 394ff.
4 Sep. 1857	Harlan wrote to Joseph Holt, commissioner of patents, praising the grapes of Kabul and offering to return to Afghanistan to collect vinestock. At this time Ohio was emerging as the leading wine-producing state as a result of the work of Nicholas Longworth, developer of Catawba wine, at his vineyards around Cincinnati. Harlan minimizes the value of the latter's efforts.	"Fruits" 526-27 DAB IX, 181-83 Gates 258 DAB IX, 393-94 "Fruits" 526
1861	Harlan, now living in Philadelphia and engaged in various business enterprises, wrote his article "On the Fruits of Cabul and Vicinity," which appeared in the Patent Office reports the following year. He again urged a collecting expedition and disparaged the camel experiment, by now abandoned. This time, for support, he quotes to Holt the noted developer of the Genesee valley in upstate New York, James Wadsworth.	"Fruits" 537 Carroll 405 "Fruits" 527 DAB XIX, 307-08
15 Apr. 1861	Abraham Lincoln issued his proclamation calling for 200,000 volunteers to suppress the southern rebellion.	
Aug. 1861	Organization of "Harlan's Light Cavalry" commenced "as an independent Regiment ... under authority of the Secretary of War" (one of many such).	Dyer III, 1563
Oct.-Nov. 1861	Harlan was commissioned colonel of the regiment 5 Oct.; the regiment moved to Washington, D.C., 14 Oct. On 13 Nov., in accord with the subordination of all volunteer units to their respective state governments, the name was changed to Pennsylvania 11th	Ross 21 Dyer III, 1563 Shannon I, 261-62

Regiment Cavalry. The regiment was ordered to Fortress Monroe, Virginia on 17 Nov. and remained in Virginia.

20 Aug. 1862 — Harlan resigned his commission due to poor health. — Ross 21

1864-67 — He continued to live in Philadelphia. Ross cites his entry in one city directory as "Harlan, Josiah, gentleman." But an 1867 <u>City Directory</u> (p. 391) lists him in authentic style as "Harlan, Gen., U. S. A."--a form that puts his name in front of all the Harlans. — Ross 21

He moved to California, ending up in his old trade of medicine. — Ross 23

Oct. 1871 — He died in San Francisco and was buried there. — Ross 23

1908 — Several pieces of prepared text came into possession of the West Chester Historical Society, West Chester, Pennsylvania. These apparent segments of the <u>Personal Narrative</u> would be published by Frank E. Ross in 1939 under the title <u>Central Asia</u>. — Ross 9

ca 1929 — The other known documentation from Harlan's travels was destroyed when his daughter's house in West Chester burned.

Ross 9

A MEMOIR

OF

INDIA AND AVGHANISTAUN,

WITH OBSERVATIONS ON THE

PRESENT EXCITING AND CRITICAL STATE

AND

FUTURE PROSPECTS OF THOSE COUNTRIES.

COMPRISING REMARKS ON THE MASSACRE OF THE BRITISH ARMY IN CABUL, BRITISH POLICY IN INDIA, A DETAILED DESCRIPTIVE CHARACTER OF DOST MAHOMED AND HIS COURT, ETC.

With an Appendix

ON THE FULFILMENT OF A TEXT OF DANIEL, IN REFERENCE TO THE PRESENT PROPHETIC CONDITION OF MAHOMEDAN NATIONS THROUGHOUT THE WORLD, AND THE SPEEDY DISSOLUTION OF THE OTTOMAN EMPIRE.

BY J. HARLAN,

LATE COUNSELLOR OF STATE, AID-DE-CAMP, AND GENERAL OF THE STAFF TO DOST MAHOMED, AMEER OF CABUL.

PHILADELPHIA:

J. DOBSON, 106 CHESTNUT STREET.

R. BALDWIN, PATERNOSTER ROW, LONDON.

H. BOSSANGE, 11 QUAI VOLTAIRE, PARIS.

1842.

Right: Title page of Harlan's <u>Memoir</u>.

REFERENCES

Works of Josiah Harlan

CA	Central Asia. Personal Narrative of General Josiah Harlan 1823-1841. Edited by Frank E. Ross. London: 1939.
"Camels"	"Importation of Camels." 33rd Congress, 1st Session, Senate, Executive Document No. 27: Report of the Commissioner of Patents for the Year 1853. Agriculture. Washington: 1854. Pp. 61-68.
"Fruits"	"On the Fruits of Cabul and Vicinity." 37th Congress, 2nd Session, Senate, Executive Document No. 39: Report of the Commissioner of Patents for the Year 1861. Agriculture. Washington: 1862. Pp. 526-37.
Mem.	A Memoir of India and Avghanistaun. Philadelphia: 1842.
"Narr."	"Personal Narrative of General Harlan's Eighteen Years' Residence in Asia." Reprinted from the United States Gazette in the Mem., 8 pp.

Works of Contemporaries

AJ	The Asiatic Journal and Monthly Register, New Series I-XL. London: 1830-43.
Burnes	Alexander Burnes, Cabool: A Personal Narrative of a Journey to, and Residence in that City in the Years 1836, 7 and 8. London: 1842; repr. Lahore: 1961.
Havelock	Henry Havelock, Narrative of the War in Affghanistan. in 1838-39. 2 vols. London: 1840.
Honigberger	M. Honigberger, Thirty-Five Years in the East. London: 1852.
Kennedy	Richard Hartley Kennedy, Narrative of the Campaign of the Army of the Indus, in Sind and Kaubool, in 1838-9. 2 vols. London: 1840.
Lawrence	H. M. L. Lawrence, Adventures of an Officer in the Service of Runjeet Singh. 2 vols. London: 1845; repr. Karachi: 1975.

McGregor — W. L. McGregor, The History of the Sikhs. 2 vols. London: 1846; repr. Delhi: 1970.

Marsh — George P. Marsh, "The Camel." The Miscellaneous Documents of the Senate of the United States for the Second Session, Thirty-Third Congress, 1854-'55, vol. I, Misc. Doc. No. 24: Ninth Annual Report of the Board of Regents of the Smithsonian Institution. Washington: 1855. Pp. 98-122.

Masson — Charles Masson, Narrative of Various Journeys in Balochistan, Afghanistan and the Panjab. 3 vols. London: 1842; repr. Karachi: 1974

Mohan Lal — Mohan Lal, Life of the Amir Dost Mohammed Khan, of Kabul. 2 vols. London: 1846.

Suri — Lala Sohan Lal Suri, Umdat-ut-Tawarikh Daftar III, Parts (I-V) Chronicle of the Reign of Maharaja Ranjit Singh 1831-1839 A.D. Translated by V. S. Suri. New Delhi: 1961.

Vigne — G. T. Vigne, A Personal Narrative of a Visit to Ghuzni, Kabul, and Afghanistan. London :1843.

Wolff — J. Wolff, Researches and Missionary Labours among the Jews, Mohammadans and other Sects. 2nd ed. London: 1835.

Other Sources

Alumni — University of Pennsylvania, General Alumni Catalogue of the University of Pennsylvania. Philadelphia: 1917.

Carroll — Charles C. Carroll, "The Government's Importation of Camels: A Historical Sketch." 58th Congress, 2nd Session, House of Representatives, Document No. 743: U.S. Department of Agriculture, Twentieth Annual Report of the Bureau of Animal Husbandry for the Year 1903. Washington: 1904. Pp. 391-409.

Cunningham — Joseph Davey Cunningham, A History of the Sikhs. Ed. H. L. O. Garrett. Oxford: 1918.

DAB — Dictionary of American Biography. 20 vols. New York: 1928-36.

Dyer — Frederick H. Dyer, A Compendium of the War of the Rebellion. 3 vols. New York: 1959.

Forbes	Archibald Forbes, The Afghan Wars 1839-42 and 1878-80. New York: 1892.
Gates	Paul W. Gates, The Farmer's Age: Agriculture 1815-1860. New York: 1960.
Grey	Charles Grey, European Adventurers of Northern India 1785 to 1849. Lahore: 1929.
Kaye	W. J. Kaye, History of the War in Afghanistan, 4th ed. 3 vols. London: 1890.
Malleson	G. B. Malleson, History of Afghanistan from the Earliest Period to the Outbreak of the War of 1878. London: 1878.
Matriculates	University of Pennsylvania, Biographical Catalogue of the Matriculates of the College 1749-1893. Philadelphia: 1894.
Ross	Page references are to the biographical introduction in CA, pp. 7-23. See also his notice in DAB VIII, 272, and "An American Adventurer in Central Asia," Journal of Indian History XII, 1933, 390-92.
Scharf	J. Thomas Scharf and Thompson Westcott, History of Philadelphia 1609-1884. 3 vols. Philadelphia: 1884.
Shannon	Fred Albert Shannon, The Organization and Administration of the Union Army 1861-1865. 2 vols. Cleveland: 1928.
Whitteridge	Gordon Whitteridge, Charles Masson of Afghanistan. Warminster: 1986.

IN PREPARATION FOR THE PRESS,

PERSONAL NARRATIVE

OF

GENERAL HARLAN'S EIGHTEEN YEARS' RESIDENCE IN ASIA,

Comprising an account of the manners and customs of the Oriental nations with whom the author has had official and familiar intercourse.

The following interesting notice is taken from the United States Gazette:

We are happy to announce that General Harlan is preparing for the press a narrative of his residence and travels in Asia. A sojourn of eighteen years amongst the Pagan and Mahometan communities of the East, has afforded the General unequalled opportunities of becoming intimately acquainted with the religion, laws, manners and customs of the Orientals, and we are enabled to state, with the fullest confidence in our compatriot's versatile talents, his abilities for observation, and his investigating tact, that the projected volume will be interesting and instructive, no less to the philosophical inquirer than to the general reader. The General will confine himself chiefly to a history of his personal adventures, though in reference to his travels in remote countries, heretofore little known, he will give us the geography and topography, statistics of commerce and population, &c.; also profoundly treating of political questions of the deepest interest, in regard to the policy of England and Russia, in Central Asia.

Amongst the most extraordinary events of General Harlan's career, was his passage of the Indian Caucasus in 1838–'39, in command of a division of the Cabul army, and accompanied by a train of artillery. We view this expedition as an incident altogether unique since the period of Alexander's conquests. With this prominent exception, no Christian chief of European descent ever penetrated so far into the interior of Central Asia under circumstances so peculiar as characterize General Harlan's enterprise, and we relinquish the palm of antecedent honour to the Macedonian hero alone. Retracing the steps of Alexander, General Harlan has performed a feat that ranks with the passage of the Simplon. For the enterprise, the energy and the military genius displayed by our distinguished compatriot, we claim an association with the names of other heroes who have attained celebrity by scaling mountains.

This expedition may be viewed as a pioneering effort to prove the existence of a practicable military passage between Cabul and Bulkh, the ancient Bactra.

The unequivocal success attending this discovery, announces to the world in characters of prosperous experiment, written high upon the eternal snow-capped peaks of the Paropamisus, which pierce their altitudes 18,000 feet above the level of the sea—the accessibility of India to Russia. Should the result lead to, or facilitate the views of national glory, which the history of Russian policy shows us the never tiring and aggrandizing diplomacy of the north sustains, the consequences attending this great enterprise, may, and probably will, prove an entering wedge for the destruction of the Indo-British empire, the disintegration of that arrogant and audacious power which wields at this moment an universal sway; of Great Britain, whose pre-eminence is the jealousy of the Christian world; of England, King of Kings; supremely paramount in all views and positions, political and moral, over a reluctant though enthralled community of crowned heads.

Several titles of honour have been conferred on General Harlan, by the Princes of Asia, with whom he has seen service; but our worthy compatriot retains the military title in social intercourse, in consideration of his republican relations, and as we have heard him observe, "not to impeach my natural right of citizenship, which I value above all sovereignty." At the commencement of his career, our enterprising compatriot was a surgeon in the service of the East India Company, which he entered at the period of the Burmese war. He served a campaign in the Birmah Empire, under General Sir Archibald Campbell, in medical charge of a detachment of Bengal Artillery, commanded by Colonel (now Major-General) George Pollock. At the conclusion of the war, having acquitted himself with high reputation, he resigned his appointment. The love of travel, and ambition of military glory, seduced him from the beaten track of monotonous and supine routine, and he visited Cabul in 1828, with a view, among other motives, to personal adventure. To improve the opportunities of diplomatic distinction which the occasion offered, he received from Shujah ul Moolk, the legitimate, though exiled King of Cabul, then residing at Loodianah, under British patronage as a stipendiary, the powers of a secret agent, in which he was commissioned and stimulated to revolutionize Avghanistan in favour of the "true King." Boldness is the grand secret of success in diplomacy. General Harlan, failing in an attempt to seize upon a strong fortress on the Indus, "where," says he, "I should instantly, and, no doubt, successfully, have proclaimed the King, I proceeded to Cabul, in the disguise of a Dervish, and before commencing the train of operations which were to result in a change of dynasty, to dethrone the occupant, and restore an antiquated pretender, I became a guest in the house of the reigning Prince's *brother*, under whose patronage, and by whose assistance, I determined to effect my purpose. Let no Christian be deceived by the fraternal appellation. Amongst the customs of the Orientals, we meet with strange perversions of our commonest received principles, and the term brother, in a community which springs from a system of polygamy, means a natural enemy, a domestic adversary, expectant heir of a capricious parent, contending for mastery in the disturbed arena of family feuds; and any other signification of conflicting import with the kind affections and fraternal love, the union of design and submissive regard prevalent for the most part among Christians." In the course of seven years' intrigue, which resulted in the restoration of Shujah ul Moolk, General Harlan resided at Lahore, in the service of Runjeet'h Singh, and he acquitted himself so successfully in the honorary service of Shah Shujah, that the exiled monarch, to attest his profound appreciation of his agent's abilities, distinguished him with the title of "Unees ul Dowlah B'hader," which, we learn from the General's explanation, implies the "King's nearest friend," and is a title of nobility, beyond which there is none more exalted at an Oriental court. In all the firmans subsequently addressed to him by Shah Shujah, he is designated "Mokurrib ul Khakan Unees ul Dowlah B'hader;" literally, "Companion of the Imperial Stirrup, and nearest friend of the Empire, the Brave." During his residence with Runjeet'h Singh, Prince of the Panjab, he was governor of the provinces of Jesraota and Noorpore, two districts then newly subjugated by the King of Lahore, located on the skirt of the Himalah mountains. Subsequently he was invested with a sword, an elephant, and a magnificent dress of honour, in the presence of the Vizier Rajah Soocheat Singh, and General Allard, (the former investing him,) and despatched to the government of Guzerat'h, in command of a brigade of infantry and artillery.

After seven years residence in the enjoyment of wealth and the luxury of the most sumptuous court in Asia, he left the Panjab and entered the service of Dost Mahomed, the reigning Prince of Cabul. He was received by Dost Mahomed with much the same feeling of exultation that the King of Persia is known to have indulged when his Court was visited by Themistocles; for General Harlan was dissatisfied with Runjeet'h Singh, and says, "Monarch as he was, absolute and luxurious, and voluptuous in the possession of treasured wealth and military power, I resolved to avenge myself and cause him to tremble in the midst of his magnificence." Dost Mahomed received General Harlan as a brother, ever addressed him by that title, seated him in the Divan or Durbar at his side, gave him the command of his regular troops with the title of Sir-i-Lushker (Sirraskier,) or General-in-chief, and Mus-a-hib or Aid-de-camp; at his instigation declared war against Runjeet'h; a campaign was projected by General Harlan; a great battle was fought at Jemrood, "the Seiks were defeated, Runjeet'h's Commander-in-chief with 2000 of his men were killed, and 1000 Avghans. The proud King of Lahore quailed upon his threatened throne, as he exclaimed with terror and approaching despair, "Harlan has avenged himself, this is all his work." Indeed the old Prince's infirmities were so much aggravated by the disgrace of defeat, that from the date of this misfortune he declined more rapidly, and never again rallied to the former energies of his ambitious and vigorous spirit. The year subsequent to this victory, he was despatched by the Prince of Cabul on a military expedition into Tartary, to make war upon the Prince of Kundooz, with whom Dost Mahomed had long been at variance. It was in the execution of this enterprise "I surmounted the Indian Caucasus, and there upon the mountain heights, unfurled my country's banner to the breeze, under a salute of twenty-six guns. On the highest pass of the frosty Caucasus, that of Kharzar, 12,500 feet above the sea, the star-spangled banner gracefully waved amidst the icy peaks and soilless, rugged rocks of a sterile region, seemingly sacred to the solitude of an undisturbed eternity. We ascended passes through regions where glaciers and silent dells, and frowning rocks, blackened by ages of weatherbeaten fame, preserved the quiet domain of remotest time, shrouded in perennial snow. We struggled on amidst the heights of those Alpine ranges—until now, supposed inaccessible to the labour of man—infantry and cavalry, artil-

lery, camp followers, and beasts of burden—surmounting difficulties by obdurate endurance, defying the pitiless pelting of the snow or rain, as these phenomena alternately and capriciously coquetted with our ever changing climate—we pressed onward, scaling those stony girdles of the earth, dim shades, as children of the mists far above the nether world, toiling amidst the clouds like restless spirits of another sphere, thus accomplishing the passage over a mountain district, 300 miles in extent from Cabul to Bulkh." The journal of this route minutely records the geography, topography, resources, and military capabilities of the Paropamisus, and forms a valuable work upon that highly interesting portion of Central Asia.

We have been permitted to extract from this journal, the following interesting notice of an interview with the independent princes of the Paropamisus or Hazarah Jaut, known in history by the name of Ghoree. It will be perceived that our distinguished fellow-citizen is in fact the, "Prince of Ghoree," although we are perfectly well aware the General looks upon kingdoms and principalities as of frivolous import, when set in opposition to the more honourable and estimable title of American citizen: "When at Kaumerd on my expedition to Bulkh, my camp was visited by the Princes of the Hazarah Jaut'h, or Ghoree, viz.,—Mahommed Reffee Beg Yenghoreah of Soorkh-jooe Dye Zungee. His possessions are the capital of Ghoree. Meer Mahommed Allee Khan of Bolagh, his brother Yacoob Beg of Lall, and Meer Mohib of Takhannah near Yakaolang. These princes were accompanied by several of their most faithful retainers, to the amount of about 300 cavalry. They were men of noble bearing and athletic forms. They were decorated in very good taste with Cashmere shawl turbans and girdles, scarlet broadcloth Tchogas, (Toga) embroidered with gold, and their persons were garnished with Persian swords, daggers and pistols stuck round their waists, in their belt, like the bristling small arms arranged around the mizzen mast of a sloop of war. Every man was a human frigate freighted with portentous belligerent impulses, and this imposing *tout ensemble* was intended to make a corresponding impression upon the weak minds of the Avghans; but they had to astonish men no way inferior to themselves, and in their turn were overwhelmed with amazement to witness the display of power; the unanimity of tactical science, the combined facility and precision so indicative of military force in the manœuvres of regular troops; the grasp of authority in the invincible command, so strangely differing from the feudal irregularity with which they were familiar; the order of discipline, and the general aspect of soul-subduing grandeur in a military review, upon the minds of semi-barbarians, acquainted only with the circumscribed experience acquired among their crags and dells. These princes invited me, collectively and individually, to visit them in their native fastnesses, where their mountains are known to contain useless wealth in unwrought ores of valuable metals. Mahommed Reffee Beg, the Chief of Ghoree, now Yengoreah, secretly arranged a treaty with me, by which he proposed a conquest of the Hazarah tribes. He transferred his principality to me in feudal service, binding himself and tribe to pay tribute for ever, stipulating that he should be made Vizier. The absolute and complete possession of his government was legally conveyed according to official form, by a treaty which I have still preserved. There was an article of the treaty by which I was bound to raise, organize, discipline and command, a regular corps of infantry and artillery, for the pay and maintenance of which the revenues of the country were an adequate appropriation, and he, the Prince of Ghoree, pledged the fidelity of himself, his heirs and tribe, in feudal tenure, to serve, obey, and pay tribute for ever.

"The sovereignty was secured to me and my heirs, and the Vizarat to himself and his heirs. I reviewed my division in their presence, and the display of military pomp and concentrated power of discipline, now practically exhibited to them, and the reputation of having taken the fortress of Sykaun, (the rock of Aornus of Alexander,) heretofore acknowledged the impregnable defence of the Uzbeck frontier, made a strong impression on Mahommed Reffee Beg, and set before his ambition a splendid perspective of conquest, dominion, and glory." The political convulsions that suddenly ensued in consequence of the invasion of Avghanistaun by the English, the deposition of Dost Mahomed, who fled into Tartary and fruitlessly endeavoured to excite a religious war amongst the Uzbecks against the English; the restoration of the old regime, in the person of Shah Shujah who had been thirty years in exile, were events which left General Harlan at liberty to revisit his native country.

Previous to the flight of Dost Mahomed, that Prince constituted General Harlan generalissimo of his forces, and himself assumed a subordinate station in the contemplated arrangements for meeting, and opposing Shujah ul Moolk and the English. The fall of Ghiznee produced a moral impression which could not be withstood by the resources and military array of Dost Mahomed, and he precipitately retreated. "It was about the time of afternoon prayer the prince started from his disturbed couch, where unslumbering and fearful forebodings fruitlessly solicited a hopeless rest, a trusty servant of Khan Shireen Khan, the hereditary feudal lord, who commanded the Royal Guard of Kizilbash, or Persian Mercenary Cavalry, appeared. 'Saheb,' said the messenger abruptly entering the presence, 'the Khan sends me to your Highness with this advice. Still are you here? Quick, arise, for my followers have betrayed a mutinous spirit; another moment's delay may be fatal to your chance of escape. I can no longer be responsible for your personal safety.'

"The prince, more wounded by the threatening language of a feudatory than scathed by the fearful prospect of utter ruin, mildly, though with a countenance full of fire, called for his attendant, whose duty the stated period of prayer should have brought into his presence. But a fallen prince has not even a faithful slave: a stranger handed the vessel for his highness's ablution, and he mournfully performed, for the last time within his tent, the ceremonials of his religion. His prayers finished, he commenced putting up his turban—his horse ready caparisoned at the tent door. He called for the keeper of the powder magazine—he presented himself with an inventory of his charge. The prince silently glanced at its contents, and sighing deeply—'Go,' said he, 'to Mahomed Ufzell,' (his son,) 'he has my orders.'

"A crowd of noisy disorganized troops insolently pressed close up to the royal pavilion—the guards had disappeared—the groom holding the Prince's horse was unceremoniously pushed to and fro—a servant audaciously pulled away the pillow which sustained the Prince's arm—another commenced cutting a piece of the splendid Persian carpet—the beautiful praying rug of the Prince was seized on by a third.

"'Hold!' said his Highness, 'will ye not give me time to tie on my head-dress?'

"A dark scowl of desperation met his eye from those who were wont to fawn upon his kindness and flatter the once potent chief. Truly, as the dark gathering of murky clouds forebode the storm that follows—the frowning visages of audacious disrespect no longer dimly obscured the motives of cupidity. As the Prince sallied from his tent, 'Take all,' said he, addressing Golham Mahomed, 'that you find within, together with the tent.' In an instant, the unruly crowd rushed upon the pavilion—swords gleamed in the air and descended upon the tent—the canvass, the ropes, the carpets, pillows, screens, &c., were seized and dispensed among the plunderers.

"The Prince placed his foot in the stirrup, as his loaded mules passed in a line, bearing the furniture of his *cuisine.* Quick glances were interchanged betwixt the followers of Khan Shereen and Mahomed Khan, formerly the nearest friends to a prosperous prince, but now the rifest enemies of a fallen friend. These monitory signals escaped not the penetrating glance of Dost Mahomed. Suddenly he sprang into the saddle. As the turbulent host pressed upon the fugitive Prince, and whilst they were engaged in strife with each other for a division of the spoil of his kitchen furniture in the mules burthen, now thrown off, the first report of an explosion concentrated the interrupted attention of the disorganized army, which was seen divided into immense swarms and hordes—each suspiciously regarding the other with inquiring looks. Another and another explosion followed: the magazine had been fired. Not a breath of air disturbed the clear atmosphere;—a dense cloud of white smoke ascended by jets far into the upper space, in a circumscribed pillar, as each concussion of ignited powder drove up a herald to announce in other worlds the crash of empires on the earth beneath. An immense column rose into the still, clear air, like a genius conjured up by the magic of war.

"The Prince turned his horse towards that dense cloud, which seemed like a shadow, enshrining his glory—plunged into the screening veil that obscured his fallen fortunes, and protected him from pursuit, as he lost himself from the view of those who wistfully contemplated an act of treachery in the seizure of his Highness's person."

IMPORTATION OF CAMELS.

The introduction of the camel, to be employed as a beast of burden in those portions of the Western hemisphere where there are broad prairies and elevated plains nearly destitute of water, and offering but a scanty supply of herbage, of an indifferent quality, has long been viewed as a matter of much national importance, particularly since the establishment of the overland routes, requiring mingled mountain and desert service, between the Atlantic States and California or Oregon. Several dromedaries and camels have been introduced from time to time for the object in view; but owing to the want of a proper knowledge of the habits and management of the animals, the attempt has generally proved unsuccessful. Thus, camels were brought from Guinea to Virginia, in 1701, and the enterprise failed. In numerous instances, dromedaries have been introduced into the West Indies and various parts of South America, and have been employed with partial success on the scorching plains, difficult to be crossed by means of any other animal.

At the last session of Congress, a bill was offered and discussed for an appropriation for the accomplishment of the object in question, and it is hoped that further action in the matter will sooner or later take place. Here we would simply remark, that, from the nature of the country, and the necessity of communicating with Oregon and California by beasts of burden, the demands for camels would be increased rather than diminished by the construction of any possible railroad to the Pacific.

The following comments upon the habits, management, diseases, and peculiarities of the camel and dromedary, are principally condensed from a manuscript by General Harlan, of Cochransville, Chester county, Pennsylvania, who resided nineteen years in the East, during a part of which period he was actively involved in the military operations of Dost Mahomed, Amur of Cabul, and Rungeet Sing, Prince of Punjaub, prior to the conquest of Cabul by the British. As general of the staff of the former, he commanded a division of the army of Cabul, destined to the invasion of Bulkh, a part of ancient Bactria. On this expedition he was accompanied by a caravan of sixteen hundred camels, of north ern stock, in addition to four hundred attached to his own command. Being compelled to cross the highest range of the Indian Caucasus, and to superintend his own commissariat, he enjoyed the most ample opportunity for becoming practically familiar with the capacities of the northern or Bactrian camel, as he had been previously with those of the dromedary of the plains. He was also able to estimate the relative

value of the cross resulting from their admixture, and known as the "Booghdee" by the Affghans and other northern tribes.

Of the dromedary of the plains, (*Camelus dromedarius,*) General Harlan remarks, that, when selected for burden, he is loaded with ease and safety, and will carry, on an average, four hundred pounds in a level country. On long journeys his daily march is about eighteen miles, and his rate about two and a half miles per hour. The more delicate-blooded and highly trained animals bear much the same relation to their laboring compeers that the racer holds to the dray-horse. They are used exclusively by couriers and express-riders. Their ordinary day's journey is sixty miles; but a fine specimen will travel one hundred miles daily, for several days in succession. His utmost speed is about ten miles an hour.*

The dromedary has seven callosities, upon which he throws the weight of his body, both in kneeling down and rising up. There is one on the breast, two on each of the fore-legs, and one on each of the hind-legs. He sleeps always with his knees bent under his body, with his breast upon the ground, and kneels to receive his load, resting meanwhile on these callosities, which protect the skin from injury by his weight. In the whole structure of this "ship of the desert," there is a most especial adaptation to its arid region, and to those services which man there requires of it, and without which the intercourse of mankind in the East would have been confined to small spots where abundance reigned. The commodities of one part of Asia could not have been exchanged for those of another; commerce, the great moving principle in the extension of civilization, would have been unknown; and knowledge would have been limited to particular districts, and would there have been of the most stunted and feeble growth. The camel's feet are formed to tread lightly on a dry and shifting soil. Its nostrils have the capacity of closing to exclude the sand when the whirlwind scatters it over the desert. Unlike the "iron camel" of America, it is provided with a peculiar apparatus for retaining water in its stomach, so that it can march from well to well without great inconvenience, although they be some hundred miles apart, while its steam-breathed rival refuses to labor without a half hour's draught. Patient under his duties, he kneels at the command of his driver, and rises cheerfully with his load. He requires no whip nor spur during his monotonous march, but when fatigued his driver sings him some cheering snatch of his Arabian melodies, and the creature, evidently delighted with the musical sounds, toils forward, with a brisker step, till the hour of rest arrives, when he again kneels to be disburdened for a little while; and if the stock of food be not exhausted, he is further rewarded with a few mouthfuls of the barley-cake which he carries for the sustenance of his master and himself.

The dromedary of the plains is very ill-adapted to mountain travel-

* The Asiatics and Africans do not apply the term *dromedary* to all of this species, but merely to a light and very swift breed of it, and which is used for riding. As a dromedary, or swift camel, may be of either of the two species, the practice of compilers always calling the one-humped camel the dromedary, creates confusion, especially in reading travels where the word is discriminately used. The Hebrews call the camel *gamal;* the Arabs, *djemal;* but a swift camel, or dromedary, they call *el herie.*—D. J. B.

ling, having but feeble power in climbing, and still less in descending a steep. His chief usefulness is confined to sandy soils; for, when the ground is wet and slippery, as it is usually in clay ground, his hind-feet are exceedingly apt to slide apart and rupture or sprain the ligaments of the pubis, the thighs being very deficient in adductive power, and the legs being very long. This accident is usually fatal; and if it occurs on a journey, the animal is generally killed or left to starve. As a preventive, the hind-legs are hoppled above the gamble-joint, by means of a cord, when travelling over treacherous ground. When thrown down or swamped in mire, the dromedary makes no attempt to rise. The elephant or the horse will roll upon the side on such occasions, and will await or assist the efforts made to relieve him, but the dromedary resigns himself to despair. He is a very noisy creature, and is constantly roaring and braying while being handled and loaded by his driver. Indeed, the slightest disturbance calls forth his obstreperous lamentations.

The Bactrian camel (*Camelus bactrianus*) is a stouter-limbed, heavier-bodied, and much more bulky animal than the dromedary of the plains. He might be useful as a beast of burden, but for the great size of his two humps, and their peculiar position, which render it impossible to adapt such a saddle to his irregular back as would accommodate a respectable load, for much weight upon the back between the humps is inadmissible. The hump in all the camel family is intolerant of pressure, and their burdens are borne upon the shoulders and hips—chiefly the former. This species is, therefore, seldom used, even for light carriage, yet is invaluable as the parent of a hybrid race, formed by crossing the male Bactrian camel with the female dromedary of the plains. This is the "Booghdee" of which we have already spoken. Consequently, the blood of the Bactrian camel is extensively diffused among the dromedaries of the mountains and plains of Central Asia, Syria, and Egypt.

The Booghdee, or cross just mentioned, bears much resemblance to the male parent in general figure, being short-limbed, heavy-bodied, and possessed of great muscular power; but he inherits from his mother the peculiarity of the single hump, and becomes merged into a dromedary. He is not employed by couriers, or express-riders, his speed not being remarkably great.

The average load for a Booghdee, is 600 pounds when traversing plains, and 400 pounds on ordinary mountain roads. His greatest advantage over the ordinary dromedaries, as a mountain carrier, arises from the strength and complete development of the claw which forms the termination of each toe in the camel tribe. In this particular the animal follows his paternal parent; for this appendage is feeble and short in the dromedary of the plains, rendering him less secure in treading among rocks and on wet ground. Moreover, the strength and length of the claw decline rapidly in the mixed race, as the blood of the Bactrian camel becomes less dominant in the progeny. In the true Booghdee it is so strong, that he is nearly as sure-footed as the horse. The comparative shortness of his hinder extremities, also, secures him from disablement by the sliding apart of the thighs; and, being bred among the mountains of the north, his constitution is adapted to colder regions, without unfitting him for labor under the burning sun of the

plains. He is a much quieter animal than the Indian drômedary, and makes scarcelv any noise on the march.

The very difficult incursion to Bulkh, 360 miles distant, over the snow-clad summits of the Indian Caucasus, and the return thence to Cabul, in the winter season, was accomplished by General Harlan with the loss of but one camel, and even that one was killed by an accident unconnected with disease or fatigue, though the campaign lasted seven months. His animals were all of the northern varieties, chiefly Booghdees. On the other hand, the British army of the Indus, on its march to Cabul, under Lord Keen, in 1838 and 1839, employed exclusively the dromedaries of the plains of Industan. On the return of General Harlan to India, over the route of one division of this army, he found the line of march literally strewn with the bleaching bones of this unfortunate train; and he learned, from the verbal report of the British fiscal agent at Calmul, that in the other division, accompanied by 35,000 camels, "the result was still more disastrous."

It is obvious, then, that the dromedary of the plains is the proper animal for express-riding on the sands or saline dust of the Great basin, and perhaps in some parts of Middle California; but that he would be useless for all other purposes, except for breeding in the prairie and other regions of the West, where not only arid deserts, but also snow-clad mountains, require to be traversed. The introduction and rearing of the Booghdee should be regarded as the great national object, the importation of the Bactrian camel and the dromedary of the plains being incidentally necessary for the production and preservation of that invaluable race.

All who are acquainted with the history of the improvement of animals by crossing breeds, are aware of the impossibility of preserving the value of mixed stock when the parents differ widely in character, if the plan of breeding "in and in" be pursued. In order, then, to effect the successful domestication of the Booghdee, or mountain dromedary, with us, it will be requisite to supply ourselves with several pairs of the dromedary of the plains for the sake of a supply of females, and a like number of Bactrian camels for the sake of males, although the female of neither race is of much value for burden. It would be likewise desirable to secure a few high-blooded courier dromedaries for the purposes of speed alone.

No sufficient supply of either tribe of camels, except the dromedary of the plains, can be obtained in Lower India; and better specimens even of this class—better, because stronger and more capable of endurance—can be procured nearer home, in the neighborhood of the Mediterranean, especially in Arabia. The Bactrian camel, of the best quality, can only be found in Central Asia, in countries where no one—unfamiliar with the East—dare venture to go, and where even such an adept should be armed with all the means of protection obtainable from the Russian and Persian courts.

It appears probable, then, that Smyrna would be the proper port for the shipment of the necessary supply of these animals. But, in any case, whoever may be employed to carry out the design, he will find his exertions of little avail, unless he is thoroughly acquainted not only with the habits and qualities of the several varieties, but also with the

language and social condition of the people and modes of dealing in those demi-savage regions where his mission must be performed; for no dependence whatever could be placed in local agents. Experiments upon the introduction of animals foreign to the country and climate are extremely liable to failure, in the first instance, from the difficulty of finding agents who are fully acquainted with the economy, habits, diseases, and wants of living beings originally formed by Providence to inhabit another hemisphere; and discouragement from this cause may well prevent the success of the enterprise under notice, unless government is able to secure the advice and assistance of some one thoroughly acquainted with the climates of Northern India and the United States, and also with the varieties, the mode of breeding, and the physical management of camels and dromedaries.

From what has been stated above in this connection, it will be perceived that the capacity for labor of the Booghdee or Bactrian dromedary approximates to three times that of the horse, when loaded upon the back. For draught he is of little use, though sometimes employed in Asia for the light ploughing, or rather scratching of the earth in vogue there, as well as for some other similar duties. In soft sands, or on river mud, he is much less liable to sink or become mired, in consequence of the great size and compressibility of the spongy ball beneath the foot. In this respect he has the advantage of even the dromedary of the plains, because his greater bulk and weight are compensated by at least a proportional enlargement of all parts of his extremities.

The Booghdee wades in safety, streams deep enough to reach the belly; but when the bottom is treacherous, or the water deeper, a boat is necessary for his transportation, as he is no swimmer. The greatest drawback to his usefulness, is his liability to become jammed in descending long and rapid declivities. This species of lameness results from the continued pressure of the weight of the animal and the load upon the shoulders; but it is a curious fact in his economy, that the consequent weakness may be invariably removed in a few hours, by administering, by the mouth, about two pounds of *gour*, a kind of inspissated molasses; this quantity being about equivalent to half a gallon of the ordinary article, of which the animal is very fond.

The Booghdee is ready for full service when four years old, and is considered old at twelve years of age. In comparing him with the horse, as to relative value, it is proper to observe that he is more subject to disease, though, in this respect, he has vastly the advantage of the dromedary of the plains, which frequently die in great numbers, without apparent cause, especially during the rainy season. One form of fatal affection in all the camel tribe is a species of epilepsy, or other convulsion, which frequently occurs during the rains. Through confinement, inattention, and want of cleanliness in their treatment, these animals become liable to a peculiar mange when preparing to shed their coats; and this complaint, when neglected, often produces death.

The female camel goes with young between eleven and twelve months, bearing only one foal at a birth.

The original price of beasts of burden is a matter of secondary consideration in calculations of economy, when compared with their maintenance; nor is of much more moment in comparison with the expense

of introducing animals from distant countries. But, as the prices of camels and dromedaries in the East may excite some interest in those who contemplate their introduction, it may not be amiss to mention that a good Bactrian camel is worth, in Central Asia, about $50; a dromedary of the plains, adapted to breeding, for the purpose of increasing the stock of Booghdees, may be had in India at an average price of $30, but would probably be found much dearer in Syria; and the value of superior courier dromedaries in Beloochistan, the centre of their excellence, varies from $125 to $350, according to the perfection of their points. A Booghdee of superior quality is worth at least $50 on the borders of Persia. I speak here of the males only; for the females, of all the varieties, are worth less than half these prices, though capable of bearing about half a load when not engaged in the care of their young.

In food, these animals are almost as omnivorous as the goat. The interior of their lips and mouth is studded with very numerous, long, and hard spicula, pointing backward toward the throat, and retaining the masses of tough and coarse herbage which they masticate with avidity, and, indeed, with a voracity almost insatiable. These spines, with the lining membrane which covers them, are so callous that they bid defiance even to stout woody thorns. The camel or dromedary will sieze a strong branch of the acacia tree in its large mouth, pressing it back nearly to the commissure of the lips, and then dragging it between the teeth, to the very tip of the last twig, he will appropriate all the leaves, in spite of the acute prickles for which the tree is remarkable. He is fond of the saline or alkaline vegetables of deserts, and especially so of the wild sage. There is probably no plant in the Great basin, or about its margin, that would not be received by him as a luxury. He is such a gormandizer in browsing that he often surcharges himself, and disturbed digestion then renders his breath exceedingly offensive. The ordinary food of these animals, therefore, costs almost nothing, and may be obtained most cheaply, or even gratuitously, precisely in places where that of the horse is most expensive. On long and rapid journeys, the Europeans in Asia give their camels grain, but the natives are not in that habit, except when nothing but dry fodder is accessible, as in the winter season at the north; and it is the opinion of General Harlan that they thrive better without it, when green food can be obtained in sufficient quantity. Quantity, rather than highly nutritive properties, seems to be the chief requisite in the diet of these creatures. When grain is given, it is usual to provide them with two messes daily, and the animals are allowed plenty of time for browsing in the afternoon; but in forced marches, which are sometimes extended to thirty miles in a day, though the rapidity of the gait is never increased, the fodder is brought to them at a later hour. It is proper also to remark, that the animals should not be disturbed after their principal meal until the process of digestion is completed, and the time of this accomplishment may be ascertained by the grating of their teeth at the appropriate moment. This sound is called by their drivers "naish zudden," and until it is heard they pertinaciously refuse to move with their charge; experience having taught them that the precaution is necessary to the

health of their quadruped friends, for whom they entertain a strong brotherly regard.

The quantity of grain for a mess (if any be given) during a march is five pounds in the morning; and it is repeated in the evening, with the addition of ten pounds of dry fodder. When on a halt, the fodder also is divided between the messes. In warm climates it is customary to commence the march about daylight; and when circumstances do not require great haste, the animals are generally turned out to browse at the end of the day's journey—usually about noon—by which means the evening supply of grain is saved.

Of course, these remarks do not apply to the courier dromedary when travelling at speed. His food, on such occasions, should be, if possible, about eight pounds of unbolted flour, and two pounds of *gour*, or a quart of molasses, at each feed, with dry fodder at night. A considerable amount of *ghee* (an oil of butter) is given to these rapid pacers, as it generally improves their wind. In this country lard, or any good animal oil, might probably be substituted with advantage.

With regard to water, the camel requires it but once each day for comfort, but should be permitted to drink it at will, whenever it is accessible. The Syrian stock is accustomed to the bitter water of deserts, and their progeny also should be reared in the midst of such difficulties as they will be expected to contend with in after life. Their singular power of resisting the consequences of the abstraction of water may be improved to a great extent by training and be brought to a degree of perfection probably sufficient for the longest necessary journey through the wilderness of Western America, without wasting power by carrying a supply of an article so ponderous.

One of the great advantages of rearing the Booghdee and the Bactrian camel in this country would be found in the value of the long wool of the head, neck, breast, hump, and shoulders, forming a fleece probably quite equal to that of four sheep, which is annually shorn, and employed in forming tissues, approaching in softness the wool of Thibet, and surpassing in silky smoothness and fineness the most delicate flannel. The proceeds of this article alone would nearly or quite repay the cost of maintaining the animal, especially in the far West. As the saddle for the Booghdee is always so constructed as to avoid pressure on the hump, this wool is not destroyed by its attrition when the animal is on duty. The reason why this very valuable pile has not heretofore attracted the attention of European and American manufacturers may be inferred from the fact that little is known here of any animal of the camel family, except the dromedary of the plains, or Indian dromedary, which does not produce it. The camel's-hair shawl, so called, is not formed of the hair of the camel at all, but, as is well known, it is woven from the pile of the goat of Thibet. Its erroneous title was probably derived from the great reputation of the wool now under notice, which commands a very high price in the East, though of course much inferior in fineness to that of the goat. It is used exclusively in the manufacture of cloths and shawls for the consumption of the nobles.

We offer these somewhat extended details to show that the idea of the domestication of the camel tribe in the United States is a subject

of great importance in various ways, that it is surrounded with difficulties not likely to be foreseen by careless thinkers, and that the failure of the design, through any defect of plan, would be a national misfortune. To import the stock without a proper selection and management of the animals, both before and after their arrival, by committing the affair to some highly intelligent person, already fully acquainted with their habits, wants, and treatment, would be fatal to success. Even the importation of Arabic or Syrian drivers would only increase the expense to a great extent, without furnishing an effective remedy for the evil; for a knowledge of the climate and resources of both East and West is not less necessary than an acquaintance with the languages of both regions, to enable any one to accomplish the object with certainty and despatch. The foregoing facts have been corroborated from frequent conversations with Hon. Caleb Lyon, of Lyonsdale, New York, who passed some time in the East, and had ample opportunities for verifying their truth.

ON THE FRUITS OF CABUL AND VICINITY,

WITH A VIEW TO THE INTRODUCTION OF THE GRAPE-VINE OF THAT REGION INTO THE CENTRAL CLIMATE OF THE UNITED STATES.

BY JOSIAH HARLAN, OF PHILADELPHIA.

As an introduction to some remarks on the grape and other fruits of Cabul, the following letter, dated September 4, 1857, from myself to the Hon. Joseph Holt, former Commissioner of Patents, is properly prefixed:

"I observe by the public papers that you propose *experimenting* with grape culture by cuttings of our *native vines!* I believe this has already been effectually tried by Mr. Longworth, of Cincinnati, with a result that proves beyond peradventure the worthlessness of all such efforts I have several native vines growing on my mill-race bank, Chester county, near Cochransville, under most favorable culture, which show merely an improvement in the size of the fruit; none whatever in flavor, or modification of the tough pulp characteristic of all our *native* fruit They are the black or purple and the white species; a good article for preserves and marmalade, but do not approach the character of a tolerable table fruit in their present state.

"My object is to draw your attention to the introduction of cuttings from Cabul, a capital city of Khorassan. The success of this enterprise will enhance the wealth of our country infinitely beyond all the results heretofore contributed by agricultural experiments. It will also prove a blessing to our people by the development of habits of temperance, which we see are invariably prevalent in all wine-producing countries. The Cabul grape would place our country on a parallel with France, Spain, and Italy. For vine growing we have every variety of climate, including the isothermal lines of those countries. My opinion is based upon practical experience of the Cabul climate, and the atmospheric phenomena, which are quite similar in both countries. The vegetable productions of each would be alike familiar with either climate, so that a vine cutting taken from Cabul this winter would start with us on the opening of spring without recognizing a change of climate, and, after two years, become a bearer. I will not offer to elucidate this subject by scientific proofs, because I am not friendly to agricultural experiments based upon theory. In place of this, I will urge the experience of personal observation derived from several years' residence and familiar intercourse with the agriculturists of Cabul, which is the greatest grape-growing country in the world The chief use of the fruit is to make sirup from its expressed juice for common popular sweetening. The Mohammedans do not manufacture wine, but the few Jews and Christians *sub rosa* manipulate the grape in that way, and the best Madeira and Port are produced from the fruit of Cabul and of Bulkh, the Bactria of Q. Curtius. Similar fruit can be produced from Spain and the Levant, but the Cabul fruit is the only kind suitable for our purpose, in consequence of its native climate corresponding with certain latitudes of our own country, such, for instance, as eastern Pennsylvania, Delaware, Maryland, Virginia, and the Ohio valley, &c A view of the Cabul vegetable and fruit markets presents a sameness of products compared with our Philadelphia and Baltimore markets, familiar and refreshing to the eye of an American; and from this fact one is induced to fancy a similarity of climate and even of soil as the cause of such coincidence The Cabul fruit, however, is vastly superior to any I have seen in Egypt, Greece, Italy, or France The mountains of Cabul are clay slate formations, with granite and carbonate of lime. The *débris* of the valleys must consequently be similar to the soil of Chester county, exclusive of the Mica ridge, extending from the Schuylkill, west of Philadelphia, in the central counties of Chester and Lancaster. From this district a large portion of the fruit in our Philadelphia markets is supplied. The average temperature of a winter in Cabul is 20° above zero, Fahrenheit. Its latitude is about 36° north; longitude about 70° east from Greenwich; and its plateau is 6,000 feet above the level of the sea. The city is situated among the mountains within the great Caucasian range. At a still higher altitude, where the inhabitants are found of the fairest European complexion, having light hair and blue eyes, known to the Mohammedans as Caffres, and supposed by some historians to be descendants of Alexander, the great colonist, the grape grows to a larger size and of a more

luscious flavor, notwithstanding a great increase of cold and more general prevalence of lasting snows. The wild olive does not grow in the vicinity of Cabul. The forest trees are oak, pine, chestnut, plane, English walnut, &c., the last not being found in the immediate vicinity of the city, except in protected localities, just as we find it in some instances near Philadelphia. The spring frosts are frequently sufficient to destroy or to injure the almond blossom at Djillalabad, which is near to Cabul, but on a plateau far below in altitude early autumn grapes are produced and brought to the Cabul market long before the vintage commences there. They are not suitable for wine, but are a most refreshing table fruit. In this district of Djillalabad the wild olive and also the wild almond thrive in the forest, the fruit being worthless As the elevation of the plateau above the level of the sea is decreased, proceeding towards the river Indus, the wild olive tree becomes scrubby and unsightly, resembling our familiar laurel, and prevails abundantly, but not in the plain or level country east of the Indus. The climate of Djillalabad is similar to that of Italy. Ice but rarely forms. At Cabul the cold and the climatology and the duration of winter forcibly remind one of the same phenomena at Philadelphia. I have seen large bowers of grape-vines, pendant with the finest and most delicious fruit, that had been left suspended as the best means of keeping the grapes, when intended for daily gathering, conditioned for market. I related this fact to the venerable and celebrated Mr. Wadsworth, of Genesee, who remarked, 'The statement is so completely at variance with the convictions of our experience, that, except for your personal relation, I could not be induced to believe the story.' Such has been the impression of my auditors when the fact was urged in social intercourse; and, supposing the government would be no less incredulous than individuals, I have heretofore for the most part abstained from any public demonstration of my views. The business of grape culture in Cabul, to which I have given considerable attention, will be specially alluded to in a paper which I propose to present to the Patent Office, [the same which follows this letter] I would respectfully suggest to the honorable Commissioner that means exist, through my intended proffer of service, by which the United States may readily and speedily become a great wine-producing country without going into trivial, doubtful, and unnecessary experimental efforts, already proven worse than useless. I propose to you an unquestionable enterprise, worthy your ambition for honorable and patriotic fame, and by which you may achieve an enduring celebrity. If you have sufficient pecuniary means at your disposal to pay the expense incident to this enterprise of attempting the acclimation here of the Cabul wine stock, and those of Caffreistaun and Bulkh, and of Kandhar, as well as other valuable fruits from those countries, quite a variety of delicious grapes may be procured, all of which are abundantly grown there in great perfection. You will readily comprehend, after perusing the accompanying report, that this project can only be accomplished by employing an experienced agent, understanding the language and acquainted with the manners and customs of the people. I propose myself to perform the duties of a special agent for this occasion, and hopefully refer you to this report to strengthen my claim to the patronage of your department. To naturalize the proper vines for all the purposes of commerce in this country would be adding millions of property to the wealth of our population. It would reform the national morals, extend immeasurably our commerce, and serve to pay off our debt to other nations, while enabling us to meet our increasing future imports, in place of remitting gold for the purpose We should thus keep the gold of California at home, and avoid the chief cause of money excitements. In short, another discovery equivalent to California would not surpass. if it equalled, the inconceivable national advantages to arise from the commercial value of a naturalized grape culture."

In the spirit of the foregoing letter, I append the following pages on—

THE CLIMATE AND FRUITS OF CABUL,

so often mentioned by the imaginative and historical writers of Persia, which were at the season (August) which I have now in mind displaying so much of their beauty and perfection. The mild, salubrious atmosphere of this favored district, its high fertility and floral and pomonal richness, have won for it from the enthusiastic lovers of nature the title of "Ta-je-i-Zemeen," the Crown of the Earth! And truly it is worth the glowing language of *Moore*, in the *Veiled Prophet:*

> "And O! if there be an elysium on earth,
> It is this! It is this!"

Cabul is secluded from the world by the vast and intricate range of mountains constituting the Caucasian region of Central Asia. Numberless productive valleys, rich with the treasures of a fertile soil, penetrate the Alpine

ranges on every side, most generally responding to the labors of man in their abundant agricultural wealth, and gratifying the senses with the songs of birds, the bright hues of a thousand blossoms, and an odor-loaded air, unrivalled by any other spot in any land. The plateau on which the city stands is elevated six thousand feet above the level of the ocean. Its latitude is about 36° north, and longitude 70° west, of Greenwich. Towards the north, ascending by steep acclivities, the black rocks which characterize the Caucasian ranges form a barrier, rising to a height exceeding eighteen thousand feet. Above the elevation of eleven thousand feet the surface is covered with perpetual snow, and during eight months in the year the whole of the elevated region is clad in the livery of winter. The mural heights and bastion-like peaks stand forth in strong relief, enveloped in their spotless robes, and based upon their pedestal of soilless rocks, between which, in the deep and rugged dells, the first glance of the summer sun awakens, in startling contrast with the rude sterility around, the splendor of a most luxurious vegetation. The awful solemnity of the desert-frown seems somewhat to relax over the dancing joyousness of silver streams and emerald gardens glowing beneath a sapphire sky; and there the inhabitants, idling in the fullness of rustic wealth, employ their leisure in favorite rural pastimes. The voice of music floats upon the air; the solitary shepherd, guarding his flock upon the mountain skirt, pipes his wild notes in response to the skylark and nightingale. The heat of summer is tempered by the surrounding snows; a bland, serene repose in the soft sunshine steals over the senses, which is likened by the natives to the feeling of rest and comfort that follows a cooling sedative when applied to an irritated wound—an idea tersely and almost literally expressed in the Persian sentence: "*Aftab missil-i-merhum h'sir-i-adam mey ufted.*" Soon after the snow disappears, about the first of April, the fruiterers of Cabul commence their busy season by the sale of "falooda." This is a jelly prepared from the farina of wheat, similar to "*blanc mange.*" It is exhibited upon the stalls of their shops in large round trays of tinned copper, a mound of snow being placed on a corner of the stall. Customers are served with the refreshment, accompanied with sherbet or grape sirup, and a quantity of snow is scraped into it. As the season advances the fruits of the country are brought to market in vast quantities, furnishing a very delectable repast at very cheap rates, and affording, by their transportation, remunerative employment to numbers of poor carriers, donkey-drivers, and porters.

The people preserve many vegetables, similar to our own, throughout the winter, and with them, as with us, the appearance of the rhubarb stalks marks the advent of spring. The wild rhubarb grows luxuriantly upon the low hills about Cabul, and is brought to the city under the name of *Rewash.* The districts producing this plant are apportioned among the villagers under rights of common; and as the natives find that it cannot be cultivated to advantage in gardens, contested rights on this subject sometimes give rise to deadly feuds among the claimants, for the *rewash* is a vegetable in great request. The mode of blanching the plant consists in piling hillocks of gravel around the sprout, as it breaks from the earth upon the native hills. By continuing this process, the plant is made to grow to the thickness of the wrist almost colorless, with a slight tint of carnation near the root, and to the height of eighteen or twenty inches. This plan, and the proper method of preventing the expansion of the leaves, which would render the plant stringy, are well known to American kitchen gardeners. Another process of blanching, less practiced with us, is to cover the sprout with an earthen jar, to exclude all light. It then curls itself spirally within the jar, and becomes quite white, crisp, and free from fibre. It is eaten in its raw state with salt or sugar, and also makes a favorite preserve. Soon after the appearance of *rewash,* the market becomes stocked with a variety of vegetables similar to our own, and in great abundance, such as the tomato, egg-plant, parsnip, spinach, radish, of mammoth size, turnip, cabbage, cauliflower,

hot grasses, peppers, red and green, &c. The lime and the orange will not grow here; these and the wine grape in perfection will not thrive in the same climate.

The first fruit in the market is the white seedless mulberry, or *Shah-toot*, the royal mulberry. This is from two to two and a half inches long, and nearly the thickness of the small finger. It is very sweet, and the tree is inexhaustibly prolific. In its season it forms the chief food of the poor. They have the oval-shaped black fruit, and another of a bluish white pulp of the same form; the black is slightly acid; the latter is sweetish, but watery. The *Shah-toot* is a grafted fruit; of the others I am doubtful. The leaves of all these different species of the mulberry tree feed silk-worms, silk being a staple of the country.

Cherries, apricots, plums, and peaches, are supplied in vast profusion and in multiplied varieties. Of the cherry there are two kinds—the red and the liver-colored. The former is similar to our mayduke; the latter is a sour fruit, introduced from Tartary, and is used for drying and preserving, for which purpose it is previously stoned; it then proves a pleasant refreshment. The apricot forms an extensive family, of which the best grafted kinds are cultivated. These take their titles from the localities whence they are derived, or give immortality to the name of some agricultural benefactor or man of taste, to whom they owe their introduction. Thus the Emperor Baber, whose tomb is in the garden near Cabul known by his name, retained a strong affection for the land of his nativity, the principality of Kokund, in Northern Tartary; and to his genuine patriotism Cabul is indebted for the possession of several valuable fruits. The apricot grows spontaneously in the mountains, but the indigenous tree bears a yellow, acid, and inferior fruit. Of the apricot there are five species cultivated in Cabul, all delicious, but not equal in quality. There is one which, I think, is called *Ibraheem-Rhaney*, more especially luscious, which requires careful manipulation in the gathering. To prevent it from being crushed, the fruit is taken from the tree in a scoop net when perfectly mature. The weight is from one to one and a half ounce; it is white one-half and the other a deep blush. Should one fall to the ground its shape is destroyed, (so delicate is the pulp,) leaving only the seed and a transparent disorganized mass. There is no fruit with which I can compare this species to illustrate its exquisite flavor. It constitutes a very light food, of which a great quantity may be consumed at one repast. Many persons breakfast upon it, carefully abstaining from meat until the succeeding meal.

Of the plum there are also several varieties: the egg plum, blue prune plum, greengage, &c. Later in the season, about the end of September, grapes, cantaloupes, and watermelons make their appearance. Of the first, Cabul is supplied with the *Ungoor-i-Husseinee*, an oval, transparent grape; a red grape, so called, of similar shape and of the same denomination, but larger; these two species, especially the first, are largely exported by caravans, chiefly to India; the *Avyhaun-Kush*, which is a large, round, white, transparent grape, not much valued; and the *Ungoor-i-Kishmishee*, a fruit not large, round, transparent, with a slight tinge of yellow, seedless, sweet and luscious; this is a superior wine grape; the bunches are very long, and the berries are suspended by long foot-stalks; the first and last named, for the table and for commerce, being, in my opinion, infinitely superior to the best grapes of Spain, Smyrna, Sicily, or Italy. There is also a sweet, blue, table grape received from Djillalabad, a temperate climate, where snow does not lie and ice is rarely formed; it is brought to market with the mulberry of Cabul. This being a Mohammedan country, the manufacture of wine is not allowed, the use of it being proscribed by their religion. A few Armenian Christians and Jews, resident there, furtively make a fine wine of the *Ungoor-i-Kishmishee*. In body, flavor, and keeping qualities this wine cannot be surpassed. The commonest use made of the sweet grape is to produce a sirup for cheap sweetening, in place of sugar or molasses. Grapes are said to cause fever if eaten before the autumnal equinox. They are exposed

for sale in vast quantities, however, from the time when the juice becomes sharply acid; then the immature fruit is used as a condiment. When the berries are dried at this season they become of a dusky red; they are ground or beaten to a coarse powder, are exceedingly acid, and a piquant addition to the celebrated *kabob*, or roasts, as prepared by this people. Seedless pomegranates, from Djillalabad; soft-shelled almonds, from Ghorebund; the grapes, watermelons, cantaloupes, Samarcand pear, apples, all from the gardens of Istatif, except the first named, and English walnuts, contribute to the supply of local fruits in autumn. The English walnut is a forest tree; it grows luxuriantly and to a considerable size in Cabul and the mountains near, the wood being used for gunstocks and ornamental purposes. The best grapes are so abundant and cheap that I have had my horse fed upon them instead of grain. The horse thrives admirably when thus treated a few weeks in autumn, this diet serving to obviate the evil of continuous dry feeding between the periods of green forage.

Of the cantaloupe, the species called *Sirdeh*, which has been introduced from Tartary, is identical with our nutmeg. This fruit will not grow in perfection in a tropical temperature, but the muskmelon is common all over India and far south. The first is supposed to be of a cooling nature, whilst the last is called heating in its qualities, and, like its species everywhere, is very little esteemed for food. The *Sirdeh* or nutmeg cantaloupe of Cabul is of the same fine flavor with our own, keeps well, and grows to a much larger size when cultivated under congenial circumstances, as is the case in Cabul and the sandy plains of the Oscus, in Tartary. The introduction of the *Sirdeh* into Cabul, where it grows in the dry, sandy beds of rivers which formerly streamed from the mountain gorges, was attended with difficulty, owing to an insect that attacked the fruit in an early stage of its growth. It was soon discovered that the evil which threatened its annihilation—for the wound inflicted caused the fruit to split open and become knotty—could be avoided by burying it in the sand beyond the reach of its enemy; this process also forced the fruit to ripen sooner, being subsequently exposed to the sun before maturity, when the insect had disappeared for the season. This method of raising the cantaloupe, and the practice of raising the pomegranate as a wall fruit in Tartary, are, I think, the only methods of artificial culture known to the natives, if we except irrigation. This species of cantaloupe, with the Husseinee grape, the almond, the pomegranate, and dried fruits, are exported by caravans in large quantities to the great cities of India, as far south as Lucknow and Scind, and also to other marts, by all the commercial routes radiating from Cabul east, west, and south. Such is the variety of exposure, and consequently of temperature, among the Caucasian glens, that the genial breath of spring mingles in places with the hot airs of midsummer, and all these fruits are contemporaneous in the market. Among the dried fruits of commerce the apricot is conspicuous; being properly stoned, the kernel is taken from the fruit and re-introduced, then the fruit is dried in pressed forms for exportation or winter consumption. The white mulberry and kishmishee grape are also cured in the sun; the former constitutes a favorite food of the mountaineers, who attribute their characteristic hastiness of temper to this peculiar diet. All the fruits of Cabul are grown in the open air without artificial means. The process of fertilization consists exclusively of irrigation for all purposes of agriculture. The grape-vines remain exposed to all the severity of climate. The vine, for ornamental purposes, is sometimes trained in the form of an arbor, frequently covered with snow without much injury to the fruit, which is often allowed to remain on the vines during part of the winter until wanted for consumption; in this case the fruit will be partially wilted, but not spoiled.

The seasons are clearly defined, and very rarely disturbed by storms or sudden revulsions. Winter commences generally by the falling of snow about the 12th of December. The cold is sometimes severely felt, but the thermometer

(Fahrenheit) seldom marks below the twentieth degree. At this season earthquakes are frequent, but not violent. The ground is frozen very hard, and usually remains covered with snow until the vernal equinox. Early vegetation starts in warm situations about the latter end of February, and is first seen in the budding of the *bede mushk*, or sweet-scented willow. This tree, or rather bush, for it resembles the basket willow, is first to open its blossoms, and is joyously hailed by the expectant natives, wearied by the restraints of the colder months; and as the rains of spring dissolve the snows and cleanse the surface of the earth, the vegetable world seems to bound suddenly forth in all the glow and freshness of a new creation. Every dry stick blossoms like the rod of Aaron; the twittering of swallows and the songs of birds mingle in harmony with the voice of troubadours, the tinkling of guitars, the ringing clash of cymbals, the roll of the drums, and the merry notes of the violin—all welcoming in concert a renovated world. The spring advances rapidly, being seldom interrupted by frosts after the opening of the almond blossoms, although this fruit (produced only in one low-lying valley in the vicinity of the city) is sometimes injured or retarded by a sudden change in temperature. I shall conclude my remarks on the fruits of Cabul by adding a description of the *singid* tree, which I omitted inadvertently, before proceeding to state the inferences and practical conclusions to be drawn from this somewhat diffuse narrative. I shall also allude to the meteorology of Cabul, which in a measure influences the mode of grape culture there, to show wherein the phenomena differs from those of the Ohio valley climate, so that *our* mode of culture shall correspond with the necessities of our own meteorological conditions.

The *singid*, or *sinijid*, is more a subject of novel admiration than utility. Its fruit when dry (and it is not used in its recent state) is of an oval form, about an i ch in length and half an inch in its shortest diameter. It very nearly resembles in appearance the date, when that fruit assumes a red color in its unripe condition; the cortex of the *sinjid* fruit is much the same as the recent sun-dried date, and also the stones of these fruits resemble each other. The pulp of the *sinjid* dries to a mealy substance and is slightly sub-acid; it is used only in small quantities, and I am not aware of its possessing any very estimable quality. The tree is ornamental, and I think belongs to the class of willow, of which it resembles the swamp species. It is cultivated chiefly for the fragrance of its blossoms, the odor of which is intense. I find the following remarks in my journal upon this tree: "The roads about Cabul are shaded by the *sinjid* tree and sweet-scented willow, whose fragrance loads the atmosphere with talismanic odors, while clear streams of living waters refresh the vegetation on their banks and fill the air with cooling influences. The fragrance of the *sinjid* blossom is said to render women more susceptible to the impressions of tenderness and love, but to create in men a cold negation of temperament and disinclination to *folatrerie*. The fragrance is more intense than that of any other flower. A gelid, musk-like scent proceeds from it, pervading one's faculties with feelings of serene repose." I have no doubt this tree would be much approved with us for its cool shade, the scent of its flowers, and its ornamental adaptability. It grows to the size of our swamp willow, and would be useful in parks and for other similar purposes.

You will observe that the fruits of Cabul offer a wide field for the consideration of the agricultural branch of your office, not that *similar* fruits are not produced in countries more accessible to your agencies, but they *do not exist in perfection* in any other cold climate corresponding with the climate of the Ohio valley. I am aware that the apricot and the nectarine are raised—the former in the State of New York, and the latter in the vicinity of Boston. They are precariously cultivated there as *espaliers* and wall fruits, with little flavor and in small quantities, frequently falling prematurely and yielding an unremunerating return.

The meteorological phenomena of Cabul differ from the Ohio valley in the rains of spring and the droughts of summer. Indian corn will not come to perfection in Cabul in consequence of the shortness of the season, whilst the grape will not grow to perfection in Peshour—a city on the northern frontier of India—where Indian corn is a celebrated staple. The spring in Cabul opens as with us by continuous rains; they begin and they cease with more regularity than in our climate, but we could readily compensate for this difference by possessing a control of the means of irrigation, to be used or withheld at will. The grape requires a regular and periodical supply of water, and until we resort to this method of culture we cannot secure constant success in the vintage. It may be that in favorable seasons irrigation may prove superfluous; but should you be unprovided with the means of irrigation in case of drought the vintage would be lost. This is a result which rarely occurs to the vintage of Cabul; and I have never heard that their vines are subject to the disease that devastated the vineyards of Europe a few years since. It is to irrigation that we must look for success, the proper management of which means will be necessary to make our country a wine growing region. This will add nothing to the expense of growing the grape. The Ohio and Kentucky slopes are peculiarly adapted for this mode of culture, and the preparation of those slopes for irrigation is simple and inexpensive. The vineyard once started remains a permanent improvement, and the primary arrangement is effected with very trifling additional labor to the ordinary preparations for planting a vineyard in our usual style. A slope, the steeper the better, should be selected for the purpose of a vineyard in the Ohio valley, with a southern exposure, where the rays of the sun may beat with all the intensity which characterizes our climate in the months of June, July, and August. The fruit must rely upon its own foliage for protection; the vines must be pruned to develop a proper condition of foliage; and its nourishment must be accomplished by the appropriate use of irrigation to secure it from the effects of drought.

The climate of France, Italy, or Spain does not demand this precaution; neither does the climate of those countries resemble that of Cabul or the Ohio valley. There can be no difficulty in selecting a site for your vineyard under the flow of water, either naturally or artificially arranged. Our springs are variable in temperature and moisture; it is only the latter phenomenon that can injure the vine by its excess. Should the ground be prepared for irrigation, an excess of rain can be avoided by shutting off the sluice, an act that can be performed by a shovelfull of sod; and, again, the obstruction is no less readily removed. After the cessation of the spring rains the vine must be watered three times a week, as a general rule, subject to the judgment of the cultivator; but two weeks before the fruit matures great care must be taken to shut off from the vine all excess of water. In case this precaution should be neglected there will be great danger of preventing the complete formation of saccharine matter, and in place of a good wine grape you would realize only a very superior table grape. In this case sugar would have to be added to the juice if used for making wine, and the result would be a fiery liquor with considerable body and good keeping qualities, but deficient in the mildness found in natural wines. These instructions are brief and simple, but they comprise all the general principles necessary for the success of grape culture proposed to be introduced in the Ohio valley. The pruning of the vine must be performed about ten days or two weeks before the sap starts; and if the spring should be unusually dry the sap should be *made to start* by letting in the water and allowing it to stand in the trench, in which the vine must be planted, at least for the period of one week, or as long as may be necessary. In watering the vineyard on other occasions the process should be performed at night—commencing about sunset and leaving off three hours before sunrise.

In Cabul the vine requires no artificial support, and is never, except for orna-

mental purposes, allowed to grow higher than two and a half or at most three feet. The branches are so trimmed as to present an umbelliferous form, the leaves and the fruit being confined to the space of about one foot at the top. From three to five bunches are allowed to mature upon each vine, which, after a growth of three years, will be of sufficient thickness to stand alone. In some places, as in Bulkh in Tartary, a country not so favorable to the grape as Cabul, the climate being warmer and the plateau at a less elevation above the sea, although it is four degrees north of Cabul, the vine is also planted in a trench, but is made to run over a terrace about six feet broad, and the fruit to rest upon the earth. In that country there is a sweet, black or dark purple Kishmishee grape produced, which makes a good red wine, similar to our imported article called Port wine, but not of the English manufacture we usually receive in this country. There is doubt that this grape of Bulkh would grow with us in the open air. It might, however, be tried in a more southern region than the Ohio valley, probably in the vicinity of Memphis or somewhere in Arkansas. In Bulkh snow does not lie through the day, although the mountain tops remain covered several days in the early spring.

The following remarks on this subject are taken from my journal, written when I resided a few months in that country as commander-in-chief of a division of the Cabul army, in 1838 and 1839, in a campaign against Muraad Bey, prince of Kundooz. This extract is a repetition of what has been said above in this connexion; but my object is to lay before you the authority for these remarks:

"The late autumn rains, which dissipate the burdened atmosphere of summer, in this province of Bulkh, commence about the first of November, and continue with little intermission until the cold of winter changes the phenomenon into snow. During February and March snow frequently falls, but it does not lie permanently, the frost not being sufficiently severe to freeze the ground. It usually melts as it falls, except during the night, but is never seen far from the mountain skirts after meridian. During winter the thermometer will not fall below the freezing point in the plain between the mountain skirt and the river Oxus. In Samarcand, however, where the finest pomegranates are raised as a wall fruit, being a few degrees further north, this small tree, or rather bush, is commonly buried or covered during winter with straw and earth. Towards the south, proceeding in the direction of Cabul, such is the rapid elevation of the great mountain range that every degree of cold prevails from that which is here stated up to the line of perpetual snow. High winds prevail from the first to the fifteenth of January, accompanied by light rains, which make the air raw and chilly. At this season the khirgah is peculiarly appreciable. This khirgah is a conical frame work constructed of light willow and covered with thick felts, forming a warm domicil in ordinary use amongst the migratory class of the population. The wood of the pistacha* growing in the mountains affords an ample supply of fuel. The fire is lighted on the ground in the middle of the tent, and the smoke escapes through a hole at the peak, which, when not in use, may be covered by a small triangular felt, movable by appropriate cords. When the winter breaks up and the weather becomes variable, a sudden cessa-

*This tree presents a conspicuous illustration of the fact that fruit bearing perennials produce alternate crops varying in quality and quantity. The tree yields a crop of fruit one year followed always by a crop of blighted fruit. The latter is like the former in external appearance, but is somewhat larger and quite destitute of a kernel. This blight, however, is of more commercial value than the perfect fruit; it is used to make an infusion that forms a mordant upon woven silk. There is a manufacture of silk in Cabul resembling the English lutestring, a heavy, enduring, and valuable article, the gayer colors of which are remarkably brilliant. The scarlet dye and its varieties are procured from imported cochineal, which is called in the Persian language "kermes," signifying "warm." My impression is that the brilliancy of the coloring is derived from the mordant used.

tion of cold causes the premature expansion, occasionally, of the almond and apricot blossoms, which then suffer by the treacherous indications of approaching spring. The climate, during this period, continues variable until the vernal equinox. After the tenth of April the heat becomes sultry; although there are no continuous hot winds, as in India, the refraction from the sandy soil is oppressive. The horticultural operations of this season commence with pruning the vine on the first of March. Their mode of cultivating the grape is peculiar to this region. Trenches are dug about one foot in depth, the earth being thrown up in the form of a terrace one foot high and six or eight feet broad. The vine being set in these trenches about three feet apart, is allowed to run over the terrace to the next trench, at the edge of which it is cut off, and the lateral branches are allowed to spread, being trimmed in to three or four buds. In this way the vine and the fruit rest upon the ground. The effect of this plan will be to force the fruit by the heat or refraction from the soil. After pruning water is let into the trenches, which are kept filled, and allowed to continue so one week. After this first watering irrigation is performed every two or three days, according to the humidity of the season. The vine should not be watered after the fruit begins to ripen. To water the vine at this period would deteriorate the saccharine principle and destroy the flavor of its fruit. The several kinds of grape produced in the province of Bulkh are all excellent. The sweetest and best wine grape is called *Kishmish;* it is a black, seedless fruit, of an oval shape, about the size of a person's first thumb joint. It differs in flavor, size, and color from the Cabul grape of the same name. It is used by the Jews of the city for making wine. The Mohammedans do not manipulate the grape for this purpose—such use being prohibited by the Koran. A few of the higher classes furtively indulge in the occasional consumption of wine, but the habit is by no means a general practice of the community. The common application of the sweet grapes in all Central Asia is to make Sheera, or ordinary sweetening, for the laboring classes. Fine loaf-sugar is largely imported from Russia, and the crystallized candy is brought from Southern India. A coarser article of this nature, called *goor*, is made by inspissating the juice of a peculiar cane which, like the grape juice, is not crystallizable. This cane grows in Djillalabad and in Scind, and is in all probability identical with the Chinese sorghum in the crystallizable quality of its juice. Upon this latter supposition, however, I am not personally experienced. The pomegranate, the pistacha, and the apricot in all its varieties, are produced in excellent quality in this country. The apricot is most successfully cultivated in the elevated valleys of the mountain region south of Bulkh. There the tree is planted in extensive orchards, and grows in the heavy soil of their glens to a large size, much taller and thicker than our largest pear trees. This and the mulberry are the principal trees found in the vicinity of cities and villages. Raw silk being also a staple, the mulberry is grown more for its leaves than its fruit. For this purpose the branches are kept closely trimmed, and the stock is not allowed to grow more than about six feet high. After a few years this tree must be renewed, when intended for silk-growing on an extensive scale. The crop of apricots is incredible to our experience of that fruit in this country. It serves many purposes of domestic utility. When the fruit is to be dried it is first stoned, then an almond kernel is introduced, and the fruit is dried in pressed forms. Oil is expressed from the kernel in sufficient quantities to supply, in a great measure, the demand for culinary purposes and for illumination. But for this last object the oil of mustard-seed is commonly in use. The pulp of the yellow, acid species of apricot is used in their processes of dyeing and as a horse medicine. When quite ripe the pulp is made into large masses, partially dried, and rolled into sheets, which, when further cured by drying in the shade, are rolled up and thus kept for use through the season. There are several varieties of plum; the most useful and agreeable being the *Alvo Bocharah* and the sweet prune plum. The former, when dried, acquires a sharp, acid taste,

which the recent fruit possesses in a slighter degree. A cold infusion of this variety forms a pleasant refrigerant, much used as an antifebrile remedy or ptisan, not unlike the infusion of tamarinds. The soft and hard shelled almonds are plentiful; also several kinds of large, excellent peaches. Melons are abundant and of superior quality. The watermelons are sweet, crisp, and well flavored. The cantaloupe consists of few varieties, all of which are good. The best are produced at Kundooz, near the river Oxus. A melon of this description was brought to me from Kundooz, in the month of February, when I was encamped in the province with the Afghan army, to which period it had been artificially preserved, that weighed about eight pounds. When fresh it must have been somewhat heavier. Although Bulkh is four degrees north of Cabul, its vegetable productions indicate a warmer climate, owing to its lower elevation above the sea level. The climate of Kandhar, south of Cabul one hundred miles, for the same reason is similar to that of Bulkh. Both are favorable to the grape, but the varieties are different from those of Cabul."

It will be seen from these discursive remarks that the grape is grown to perfection throughout a wide expanse, confined, however, to temperate zones. Including Cabul, its habitat prevails in all the varieties of temperature, with a difference in their qualities, which seems to be the result of heat, humidity, and rapid growth appropriately graduated. Within the sphere of its habitat its saccharine quality is more perfectly developed by a high temperature of its peculiar climate, whilst within the tropics it is not produced otherwise than by artificial cultivation. In Kandhar, which is the warmest climate favorable to the grape, there is a species mostly used for making raisins, of so intense a sweetness as to require a dipping into hot water, in the process of curing, to prevent the candying, which would otherwise deteriorate its commercial value. Cabul and its vicinity is the only cold country known where the grape is found in perfection. This is "the garden eastward" alluded to in the Bible. It is the most ancient portion of the globe in a communal sense, and therefore the most experienced in practical results of industrial pursuits.

Whether the climate is natural to the grape, or whether the grape has by perseverance of human application become acclimated to the region, cannot be determined; but the fact is before us that a climate whose vegetable products and meteorological phenomena so nearly resemble the Ohio valley produces in perfection the grape, whilst in all other cold climates this fruit is grown only by means of artificial culture. That the climate of our country is favorable to the *natural* growth of the vine is evident from the thriving witnesses to be seen in all our northern forests; and it would seem that the only desideratum is to procure a fruit of good quality, accustomed to a climate like our own, to take the place of the rank-growing, spontaneous species which are found here in so great an abundance, to succeed in the cultivation of a fruit which is the recorded emblem of wealth, luxury, and prosperity.*

To return to my remarks upon the mode of preparing the ground for a vineyard. Having selected the locality, as already directed, whether a slope or a

* Northeast from the city of Cabul, as ascending the vast Caucasian range which terminates at the river Indus, about five degrees further east whence the Himalaya commences, the district of Kooner is situated Here the plateau is elevated about eight thousand feet above the level of the sea, and the climate is consequently much colder and the season of summer much shorter than at Cabul But Kooner is equally celebrated with the former city for its superior grapes. Even in the higher altitudes, which include the county known as Kafiristan, the grape still continues to produce abundantly. The inhabitants of this region are distinguished by a fair skin, light hair, and blue eyes; are quite savage, having no idea of a superior being, and possess manners and customs distinct from the Mohammedan communities surrounding them There is perpetual war between the Kafirs and Moslemen who frequently make inroads upon them for the purpose of procuring slaves. The grape-vine of Kafiristan would be an essential acquisition to our country, and may be obtained through the means of such border communication as necessarily exist between these hostile races.

level, the surface must be terraced to admit of the necessary process of irrigation. The terraces may be of a width to admit a single row of vines, as on a steep hillside, or they may consist of broader beds, as upon a level surface, where several rows may be planted about three feet apart each way. The surface should also be so constructed as to admit the water through a small passage, at the highest point capable of being closed or opened by the removal or deposit of a single shovelful of sod. If the locality is a hillside, the edges of the surface must be secured from washing by a strong, well-set sod of grass; upon a level this precaution would not be necessary. In the absence of sod, a few stones would be still more appropriate for the edging. During a protracted rain this access of water to the terraces may require to be shut off. There should also be a vent at the lowest point of each terrace, formed similarly, and attended to when necessary for the purpose of a drain. By closing or opening the last vent of the suite of terraces the water could be kept stationary or allowed to flow off.*

It will have been observed by a perusal of these pages that many fruits exist in Cabul which, if grown in this country, would add greatly to the extent and value of our commerce and the comfort of our people. The acclimation of a perfect wine grape would of itself command the lasting gratitude of future generations, and place high upon the pedestal of fame the name associated with the successful attempt to accomplish this enterprise of national concern. The object of the writer is to show, by a comparison of the vegetable production and a few meteorological phenomena, that the climate of our Ohio valley, already known to be appropriate to the cultivation of the vine, closely resembles, if it be not identical with, the climate of Cabul—a country pre-eminently celebrated for the productions of its vineyards. I am aware that efforts have been made in Ohio to acclimate the European vines, which resulted adversely. This was probably due to incompatibility of climate and the mode of cultivation. It is not conclusive against the possible success of that enterprise in other localities, in a country ranging through every variety of temperature, as is the case with our country. Even should the present efforts of our horticulturists be rewarded by success, it is doubtful whether the European grape embraces the advantages of the superior luscious wine grape of Cabul, which thrives so luxuriantly in a climate of low temperature. The apple and pear, which are natives to Samarcand, the peach of Persia, the buckwheat of Persia, and many other fruits and vegetables of Asia, are grown in our quarter of the globe with conspicuous success, while in Europe those fruits are nowhere produced in perfection, if we except the pear of France; and there again the cherry is not found, which is a native of Tartary, of which Samarcand is a capital city, in Central Asia. Our climate is apparently more congenial to the fruits of Central Asia than is found to be the fact in Europe. We produce in high perfection many of the fruits from Central Asia; there is good reason to infer a similar result will attend the proposed importa-

* Any further information will be cheerfully communicated should your department require additional explanations. Should you have had leisure to peruse the printed "Memoir" I placed before you when in Washington, you will perceive in "Dost Mahomed's" personal history, where allusion is made to my visit to the prince as ambassador from Runjeeth Lingh, in whose service I then was, that great personal danger must be risked by Christians travelling or attempting to travel in Afghanistan Since the destruction of the British army which essayed the conquest of their country, the jealousy of the natives has been greatly increased, and the difficulties and dangers, at all times serious and almost insurmountable, can only be avoided by the direct authority and protection of the prince, exercised through the chiefs and rulers of the villages and districts under his control. This influence becomes available to a traveller intermediately, who may have the means of friendly intercourse with some influential person of a tribe between whom and himself the rites of hospitality may exist. My long residence in the country and familiar social intercourse with the ruling family are incidents which secure to me uninterrupted friendly relations; and in the event of adventitious difficulties, my familiar knowledge of their language and of their manners and customs would favor the security of a successful disguise.

tion of the grape-vine from Cabul, where the peach, the pear, the apricot, and the cherry, now grow in abundant perfection; all originally introduced there from the plains of Tartary, and those fruits are equally congenial to our own climate. The products of Cabul and its vicinity proper to be introduced into this country I shall name in the rotation of season, namely: the mulberry in three varieties, in view of silk growing; the rhubarb, or pie-plant, known as *Rewash;* the apricot in all its varieties, as heretofore mentioned; the Tartarian cherry for drying and preserving; the peach, the stock of which appears to be deteriorating with us, and requires renewal; some species of cabbage; the sinjid; the sweet-scented willow, and the several kinds of grape-vines, together with those of Bulkh and Kandhar. From this latter place, and also from Djillalabad, the pomegranate and the fig might be tried for cultivation in the southern region of the United States, as Arkansas, Tennessee, and Alabama, or where the orange, or rather the lime, is known to flourish. Attention should also be given to the double-humped Bactrian camel, which, since the dromedary has been now successfully naturalized in Texas and our western desert, should be brought here to perpetuate the valuable "Booghtee" or hybrid, the offspring of the Bactrian double-humped male camel and the female dromedary.*

I will conclude this voluminous report on the fruits of Cabul and vicinity by a statement of the probable expense of the enterprise. The ordinary price of a passage to India by sea is one thousand dollars. But as expedition would be requisite for the speedy accomplishment of this proposed enterprise, Bombay should be reached by the overland route, *via* France or England, and Egypt. The passage money and subsistence might exceed the sum stated. The expense of travelling from Bombay to Lahore, the capital of the Punjaub, in Northern India, a distance of twelve or fifteen hundred miles, would, with subsistence, amount to one thousand dollars or more. At Lahore, or at Peshour, five hundred miles further northwest, having crossed the river Indus, the traveller must provide himself with a saddle-horse, two baggage ponies, and with equipments for caravan marching, so that his outfit and the expense of reaching Peshour would be about one thousand dollars. From Peshour to Cabul, *via* Djillalabad, a distance of about four hundred miles, through a constantly ascending mountainous country, the expense of master, servants, and cattle, would be within four hundred dollars, making a total of three thousand and four or five hundred dollars. Returning would cost as much more; making in all seven thousand dollars. Some specimens of improved fire-arms would be necessary, as presents for the ruling prince, Dost Mahomed; the cost of these articles, and the charges for procuring, packing, and transporting the desired articles, and the expense of messengers, &c., should be charged as they occur. I should suppose, allowing for the agent's salary and travelling expenses, the expedition might be achieved within an expenditure of ten thousand dollars. An appropriation of thirty thousand dollars was made by government, or rather Congress, and placed under the control of Secretary Davis, which he expended for the purpose of importing camels. Is not the naturalization of a wine grape of vastly more importance than the naturalization of a beast of burden, not absolutely *necessary* for our population? I by no means intend to depreciate the experimental venture of importing the camel. By the comparison, I wish to exalt the other enterprise. Untold treasures would be as chaff if weighed against the moral, commercial, and national benefits to be derived from the acclimation of a wine grape in these United States! Much may be said also upon the advantages to be derived by means of commercial treaties with the princes of Central Asia and the Shah of Persia, which could be accomplished by this same agency without the necessity of government being at the expense of a minister plenipotentiary for the purpose. In these days of war expenses, and necessity for economy, this fact should have weight with the officials and with Congress.

* See Report of the Commissioner of Patents for the year 1853, Agriculture, p. 61.

MAPS

1. Harlan's travels in India and Afghanistan, 1826-1836.



2. Afghanistan as described by Harlan in the Personal Narrative and travelled in the campaign of 1838-1839.

